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ABNORMAL BACTERIA FLAGELLA IN CULTURES

THEIR RESEMBLANCE TO SPIROCHETES *

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NEW YORK

Since the introduction of dark ground illumination, which has become an indispensable means of studying certain spirochetes and filtrable micro-organisms, the possibilities for interpreting as spirochetes certain spiral elements encountered in examining culture materials have increased. Several papers dealing with the pseudoleptospira forms of citrated blood, which are seen especially after incubation at 37 C. for some time, have already appeared,[1] warning beginners not to mistake these for true leptospiras, but little attention has been given to still another source of misinterpretation not infrequently encountered in culture materials. In the present paper are recorded and discussed some observations such as once led me to mistake certain free bacterial flagella for involuted forms of a true spirochete.

In 1912, in an impure culture of *Treponema macrodentium*, a number of spiral elements were observed among typical forms of the spirochete. These elements were variable in width and length to an unusual degree. Some measured from 4 to 10 microns, and some from 20 to 40 microns. Each was provided with very regular, almost right angle windings throughout its entire length, the curves being wider at the median portion and gradually narrower toward the finely drawn ends. In large specimens the diameter of the spiral elements was several microns in the median portion and showed several parallel longitudinal striations along the axis as though in course of longitudinal division, while in minute specimens the filament measured only a fraction of a micron. The elements possessed no proper motility, appeared rigid and elastic, and showed slight affinity for Giemsa and other dyes. I thought these to be involuted forms of *Treponema macrodentium* under the conditions of impure cultivation (fig. 1).[2]

Several years later, in the course of attempts to cultivate the spirochetes of the gastric mucosa of dogs and cats and the spirochetal flora of stagnant water, it was repeatedly observed that when certain motile bacteria were present in the cultures, these free characteristic spiral elements were seen in varying numbers by dark field examination. Successive transplants of such cultures always carried both the spiral forms and the bacteria. While the bacteria might grow without the free spiral elements under certain conditions, no spiral elements appeared without the bacteria, and it looked at first as if the spiral elements were independent organisms growing in symbiosis with the bacteria. It was soon found, however, that these spiral elements could be made to appear from the bacteria at will by cultivating the latter on agar slants or semisolid "leptospira" medium. That the spiral elements are nothing but involuted flagella of the bacteria has been demonstrated by the fact that bacterial cells have sometimes been found with the flagella still attached at one or both ends, although as a rule the flagella of bacteria are invisible by dark-field illumination and are demonstrable only by special staining methods.

The size of these free bacterial flagella varies considerably in the same organisms and also with different varieties of bacteria, some bacteria giving rise to coarse spiral elements such as were observed in the impure cultures of spirochetes from the stomach of the dog (fig. 2 *A* and *B*), others to a form (fig. 2 *C, D, E*) not readily distinguishable from *Treponema pallidum*. Very delicate spiral filaments, which might readily have been confused with the minute spirochetes of the mouth, were recently found in a culture of *Leptospira icterohaemorrhagiae* which had become contaminated by bacteria through breaking of the culture tube during transportation (fig. 2 *G, H*). The spiral flagella are sharply drawn to invisibly fine points at both ends, and no buds or rudiments of the original attachment to the bacteria are recognizable; hence they appear as if they were leading an independent existence.

The possession of spiral terminal filaments, which develop to such abnormally large size under certain cultural conditions as to become visible, is common also in certain spirochetes, especially *Spironema* and *Treponema*. In their natural habitat the spirochetes of relapsing fevers or syphilis seldom show, under the dark field microscope, distinct terminal flagella, and when present they are seen only with the greatest difficulty owing to their extreme thinness. But in cultures these organisms invariably show a comparatively long and well defined, minutely curved spiral appendage at one end, sometimes at each end. These spirochetal flagella, however, are never seen to be compound in structure, as are some of the detached bacterial flagella, and they are seldom detached from the spirochetes (fig. 2 *I*).

In this connection a few words regarding the structure of *Spironema* and *Treponema* may not be amiss.

* From the Laboratories of the Rockefeller Institute for Medical Research.

1. E. W. Schultz (J. Lab. & Clin. Med. 8: 375 [March] 1923), in his discussion of artefacts in blood which simulate spirochetes, gives a considerable number of references on the subject.

2. Dr. Theobald Smith, however, suggested at the time the possibility that they might be bacterial flagella.

The spirochetes of the various relapsing fevers (*S recurrentis, S. novyi, S. duttoni, S. gallinarum*) seem to consist of three main parts; namely, the cytoplasm, the spiral axial filament, and the flagellum. This structure can be readily demonstrated by allowing bile to act on the organisms. The cytoplasm is readily dissolved by the bile, and the thin axial filament, with regular spirals, is laid bare, the flagellum at either end remaining attached. The denuding process is easily followed by means of dark field illumination, and the results can be demonstrated by stained preparations. Figure 3 *A* shows the normal appearance of *S. recurrentis,* and figure 3 *B* the effect of the bile in exposing the thin spiral axial filaments. A normal specimen of *S. recurrentis* stained with Giemsa's solution after fixation with buffered solution of formaldehyde is shown in figure 3 *C*, while a corresponding preparation of a specimen treated with bile is shown in figure 3 *D*. Figure 3 *E, F,* shows similarly stained normal and bile treated specimens of *S. novyi.*

That the greater affinity for Giemsa's and other dyes shown by the relapsing fever spirochetes, as compared with *Treponema pallidum,* is due to the thicker cytoplasmic coat covering the axial skeleton is demonstrated by the fact that, after the removal of the cytoplasm the spironemes are more faintly stained than before bile treatment (fig. 3 *D, F*) and are reddish by Giemsa's method. The denuding process of bile takes place also in the case of *Treponema pallidum,* but with less striking results, owing to the thinness of the cytoplasmic coat.

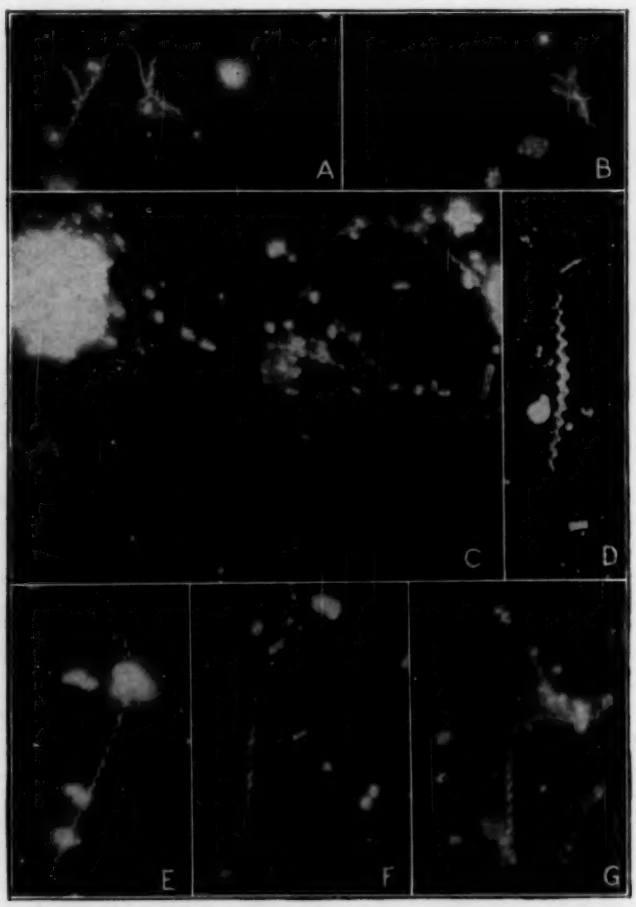

Fig. 1.—Spiral bacterial flagella encountered in an impure culture of Treponema macrodentium. All except *D* are dark field views magnified 1,000 times; *D* is a preparation made by Burri's india ink method, × 1,280.

Whether the flagellar substance of spirochetes is chemically identical with the axial filament is difficult to say, but both are spiral, are difficult to stain, are elastic in character, are similar in refraction of rays, and resist the lytic action of bile in certain concentrations. Unlike the treponemes and spironemes, the spirochetes of the *S. muris* group are normally provided with a large, distinct, readily recognizable terminal flagellum (fig. 2 *J, K*), and the cell body of these organisms is completely dissolved by bile, no trace of an axial filament remaining—perhaps none exists among this group, any more than among the true spirilla.

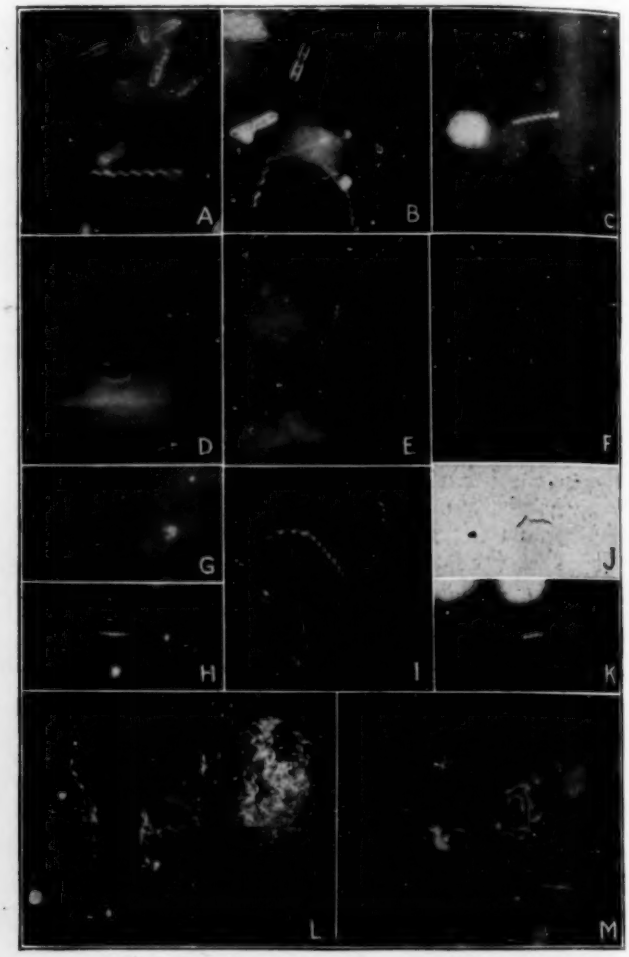

Fig. 2,—*A, B,* coarse spiral bacterial flagella in an impure culture of spirochetes from the dog's stomach; dark field views, × 1,000; *C, D, E,* spiral elements found in a culture of L. icterohaemorrhagiae from human blood; dark field views, × 1,000; *G, H,* spiral bacterial flagella in impure culture of L. icterohaemorrhagiae, × 1,000; *J,* dark field view of culture of Treponema pallidum, showing individuals with terminal flagella, and in lower left hand one detached flagellum; × 1,280; *J, K,* S. muris, showing terminal flagellum characteristic of this type of micro-organism; *J* is stained with Giemsa solution; *K,* a dark field view, both magnified 1,000 times; *L,* dark field view of pure culture of Treponema pallidum, for comparison; × 1,280; *M,* dark field view of pure culture of L. icteroides, for comparison; × 1,000.

Leptospira icteroides (fig. 2 *M*), *L. icterohaemorrhagiae,* and *L. hebdomadis* undergo granular disintegration when mixed with bile, and no axial filament comparable with that of the spironemes and treponemes has been demonstrated. No spiral elements (exaggerated free or attached flagella), such as those described for certain bacteria and spirochetes, have been encountered in the case of the leptospiras.

SUMMARY AND COMMENT

Besides the leptospira-like filaments, probably originating from red blood corpuscles under certain conditions in vitro, other spiral elements exist which may be erroneously interpreted as spirochetes. These are the exaggerated detached flagella of certain bacteria, produced under cultural conditions. In cultural studies of micro-organisms, the occurrence of these spiral elements must be borne in mind, particularly in connection with dark field illumination.

Spirochetes belonging to the *Spironema* and *Treponema* groups also produce, under certain cultural conditions, exaggerated flagellar appendages. These terminal flagella are similar in appearance and structure to the axial spiral filaments of the same organisms, but are much finer. The axial filaments are covered with a layer of cytoplasm which can be removed by the action of bile. The motility of these organisms resides in the portion of the filament next the attachment of the flagellum at either end.

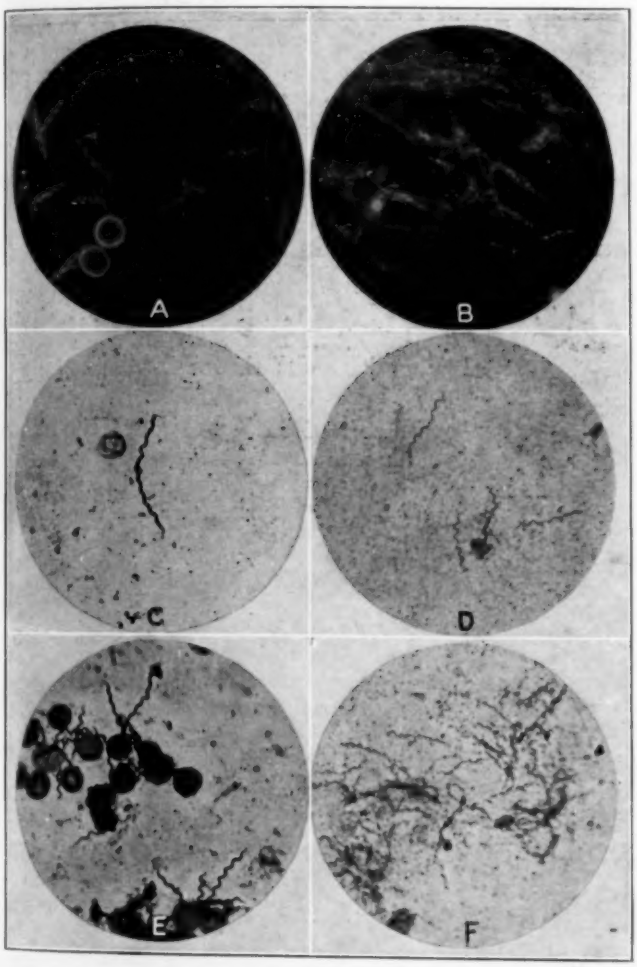

Fig. 3.—*A*, dark field view of S. recurrentis, × 1,000; *B*, the same, after it had been acted on by bile; *C*, S. recurrentis fixed in buffered solution of formaldehyde and stained with Giemsa's solution; × 1,000; *D*, the same organism, after it had been acted on by bile, stained in the same way; *E*, S. novyi, fixed in buffered solution of formaldehyde and stained with Giemsa's solution; × 1,000; *F*, the same organism, after it had been acted on by bile, stained in the same way.

The great resemblance which exists between the flagella of motile bacteria and the flagellar and axial spiral apparatus of certain spirochetes seems to indicate that the axial filaments are probably a modified apparatus of similar origin especially adapted to the locomotion of spirochetes and therefore supports the hypothesis of a close phylogenic relationship between bacteria and spirochetes.

IDENTITY OF OHARA'S DISEASE AND TULAREMIA

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The present account of what we have styled for convenience's sake Ohara's disease is based on two papers [1] published in Japanese, reprints of which were kindly sent to one of us by the author, Dr. Ohara of Fukushima, Japan. The first part of our paper presents the epidemiologic, clinical, bacteriologic pathologic and experimental observations made by Dr. Ohara. The second part presents our own observations, which were made at Washington, D. C., on material furnished at our request by Dr. Ohara and which have led us to the conclusion that Ohara's disease and tularemia [2] are identical.

CHARACTERISTICS OF OHARA'S DISEASE

Distribution.—Dr. Ohara's attention has recently been called to an acute febrile disease transmitted to man by the wild rabbits of the Abukuma Mountains in the eastern part of Fukushima Ken (prefecture), Japan. In January, 1924, a mother and two sons, simultaneously stricken with the same disease, sought treatment at Dr. Ohara's hospital. On careful investigation of the origin of the infection, he learned that symptoms had developed after they had all taken part in skinning or in dressing a wild rabbit which they subsequently ate. On making inquiry from various sources, Ohara ascertained that a disease of this nature had been prevalent among the villagers of the Abukuma Mountains for about twenty years. Dr. Ohara gives detailed histories of seven cases personally observed by him and reports of eight additional cases submitted by two physicians practicing in other parts of Fukushima Ken. Ohara's articles convey the impression that the infection is by no means uncommon in certain districts of the ken mentioned. Reference is made to cases occurring in five other kens but without, as a rule, details. In general, the infected districts lie to the north and rather to the east of Tokyo.

Relation of Rabbit Epizootic to Human Disease.—At certain seasons, dead rabbits in great numbers are seen in the mountains, the infection seeming to rage severely among these animals during the hunting season; i. e., from late autumn to early spring. In Ohara's opinion, the disease in man is caused by contact with the uncooked meat of the infected rabbit. An etiologic relationship is shown between the act of touching the flesh with the fingers in skinning these wild rabbits or in dressing the meat, and the onset in man of a febrile disease with swelling of the lymph glands. Human infection occurs whether the wild rabbit has been found actually dead or whether he is captured while

1. Ohara, Hachiro: Concerning an Acute Febrile Disease Transmitted by Wild Rabbits: A Preliminary Report, Jikken Iho, March 12, 1925, Japanese text; Human Inoculation Experiment with a Disease of Wild Rabbits, with a Bacteriologic Study, Kinsei Igaku **12**, no. 5, Japanese text.

2. Francis, Edward: Tularemia, J. A. M. A. **84**: 1243 (April 25) 1925.

still alive but suffering from this disease. In Dr. Ohara's experience, those who merely eat the cooked flesh of the rabbit or touch only the external surface of the skin show no symptoms of illness. In his opinion, the danger lies only in contact of the fingers with the raw meat.

Site of Infection and Lymph Glands.—Judging from the almost constant swelling of the lymph glands of the elbow and axilla, Ohara concludes that the site of infection must be the skin of the finger.

In two of Ohara's cases there were visible lesions of the fingers, in one instance containing a small quantity of pus, while in other cases macroscopic lesions of the fingers were lacking. It appears, therefore, that infection through the normal skin of the fingers is possible.

Enlargement of lymph glands (axillary, epitrochlear, etc.) is unilateral if only one hand is infected, but bilateral if both hands are infected.

Incubation.—The incubation period, as determined from case histories, may vary from one day to seven days.

Symptoms and Course.—After a short incubation the onset is sudden, with chilliness, or rigor and fever. Among other early symptoms are headache, languor, loss of appetite, vomiting, and articular and muscular pains. The important symptom, however, is inflammation of the lymph glands of the upper extremity, particularly those of the axilla and elbow. The adenitis may be unilateral or bilateral. The fever is at first continuous, later showing a morning remission, and may continue for several weeks; a temperature rise to 39 or 40 C. (102 to 104 F.) has been observed. In severe cases, the patient is confined to bed for several days. In a large percentage of cases, swelling of the axillary or other lymph glands goes on to suppuration. The axillary tumor may be tender or it may simulate a tuberculous adenitis, being practically painless and only slightly tender on pressure. The enlargement of the glands continues a long time, and they may still be palpable after three months.

Fig. 1.—Axillary tumor prior to operation in experimental case.

Skin Eruption.—This is usually absent. In one case, a transient rash appeared on the face and neck.

Diagnosis.—This presents no difficulty, provided one is familiar with the symptomatology of the malady and its relationship to the disease of rabbits. In the presence of an epidemic, there may be confusion with typhus abdominalis.

Prognosis.—This is good; no fatalities directly due to the disease have as yet been reported.

Treatment.—Ohara employed neo-arsphenamine and surgery.

VOLUNTEER HUMAN INOCULATION

Mme. Ohara's cheerful offer of herself to help prove the scientific conviction of her husband adds one more to the long list of heroes of human experimental medicine.

A rabbit having been found dead in a district where numerous human cases of this disease had developed very recently, its heart was laid open under aseptic precautions and some of the contained blood and tissue fluids were lightly rubbed into the back of Mme. Ohara's left hand, Jan. 20, 1925, and about twenty minutes later the adherent material was washed off with soap. January 22, the patient complained of trifling tenderness of the left axillary gland on deep pressure, and slight headache. January 24, there was general malaise; rise of temperature (37.4 C.); enlargement of the left axillary gland to the size of a soy bean, and the patient was confined to bed. On the 25th, chilliness, articular pains, headache, languor, numbness of the extremities and constipation were noted. January 26, an axillary lymph node reached the size of the end of the index finger and was very tender, and both inguinal glands were swollen and were slightly tender. The temperature curve showed fever of nine days' duration (January 24 to February 1), which reached its maximum, January 26 (39.8 C., not charted). February 7, two axillary glands the size of a pigeon's egg and several smaller glands were removed at operation; the two larger glands had undergone suppuration. Two careful blood examinations were made, with the results shown in table 1.

Table 1.—*Blood Examinations*

	January 26	January 29
Number of erythrocytes	4,860,000	4,520,000
Hemoglobin (Sahli)	93%	90%
Number of leukocytes	12,500	18,000
Polymorphonuclear neutrophils	85.12%	72.34%
Eosinophilic leukocytes	0.15%	2.34%
Small lymphocytes	6.88%	16.37%
Large lymphocytes	4.31%	2.12%
Basophilic leukocytes	0.00%	0.31%
Large mononuclear and transitional cells	3.54%	6.54%
Arneth's count	Moderate shift to left	Slight shift to left

BACTERIOLOGY

Stained Smears.—Dr. Ohara demonstrated by stained preparations (1) in the pus of one patient's suppurating axillary glands an extremely small bacillus and a gram-positive diplococcus; (2) in the pus from another patient's finger, a pseudodiphtheria bacillus and a gram-positive diplococcus, and in pus from the elbow gland of the same patient, the same diplococcus in large numbers; (3) in another patient, pus from the center of an excised axillary gland showed a few gram-positive diplococci.

Cultures.—Stab cultures made on blood agar of pus from an excised axillary gland of the experimental human case yielded a bacillus resembling morphologically the tubercle bacillus and two kinds of diplococci. Smears of the heart blood of the rabbit used in the human transmission experiment showed similar diplococci.

Causative Organism.—Dr. Ohara does not claim to have isolated the causative organism of the disease in pure culture.

PATHOLOGY

Histologic examination of the lymph gland excised in the human experimental case showed round cell infiltration, dilatation of the blood vessels, extravasation of blood, small pus cavities, caseation and giant cells.

ANIMAL INOCULATIONS

Dr. Ohara performed no animal transmission experiments. The necropsy report of the rabbit found dead and used for his human transmission experiment does

not contain specific mention of the typical lesions of tularemia in the spleen, liver and lymph glands. There is one reference [3] to yellow specks having been seen on section of the livers of dead rabbits.

REPORTS OF TWO CASES OF OHARA'S DISEASE [4]

CASE 2.—M. S., a woman, aged 46, a farmer, caught a live rabbit, Dec. 28, 1923, which was dressed by her eldest son (patient 3). Taking up the meat with her left hand, she placed it in the pot. At this time there were no visible lesions on the fingers of the left hand. On the third day (December 30) there suddenly appeared chilliness, a marked feeling of general malaise, and loss of appetite. On the fifth day, the patient became aware of a considerable swelling, tender on pressure, in the left axilla. After employing various kinds of symptomatic treatment for about ten days, she finally became able to walk, and on Jan. 7, 1924, sought treatment at the dermatologic department of Dr. Ohara's hospital.

The patient was well developed physically and well nourished. The fingers of the left hand showed no abnormalities or evidence of injury; the lymph glands of the left axilla and left elbow were greatly swollen; the temperature, 38.2 C. The diagnosis was acute adenitis of unknown origin. Local applications were prescribed, and the patient was directed to return home.

January 15, the patient returned to the hospital; the temperature was 38 C.; a general feeling of malaise was still present. Tentatively an intravenous injection of neo-arsphenamine was administered. On the following day the constitutional symptoms suddenly disappeared and the appetite showed improvement.

January 21, the temperature was 36.8 C. After the first injection subjective symptoms were entirely absent and the patient progressed favorably, yet on account of the persistence of swelling of the lymph glands a second injection was given.

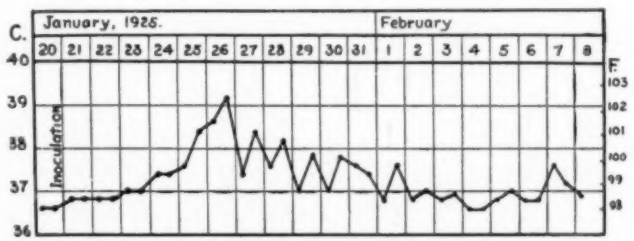

Fig. 2.—Temperature in experimental case.

January 26, a third injection of neo-arsphenamine was given.

January 30, the lymph nodes having greatly diminished in size and no longer exhibiting tenderness on pressure, treatment was suspended. The course of the disease was thirty-three days.

CASE 3.—T. S., a man, aged 25, eldest son of patient 2, with the aid of his younger brother, Dec. 28, 1923, cleaned a wild rabbit that was alive when captured. In dressing the animal, he held the knife in his right hand and grasped the flesh with his left hand. He states that at that time he observed no lesions whatever on either hand. On the third day, December 30, just as in the case of his mother, chilliness and a febrile attack supervened. By evening, being much indisposed, he took to bed. A feeling of chilliness came on daily. The patient stated that on the fifth day he observed a large tumor in the left axilla.

Jan. 15, 1924, he came to Dr. Ohara's hospital, accompanied by his mother. He was well developed and well nourished. There were no lesions on the fingers of either hand. The left epitrochlear lymph node was swollen to the size of the end of a thumb; the left axillary glands were enlarged to the size of a small apple, and, while not painful, exhibited tenderness on pressure; the temperature was 38.2 C. The thoracic and abdominal viscera were apparently normal; the color of the skin was normal; there was no albumin or sugar in the urine; the Wassermann reaction was negative. An injection of neo-arsphenamine was given.

January 24, the temperature was 37.5 C. Following the first injection, the feeling of general malaise disappeared and the patient became able to resume work. The swelling of the glands at the elbow was somewhat diminished; there was no change in the condition of the axillary glands. A second injection of neo-arsphenamine was administered, after which the patient felt as though he was entirely cured and was so regarded. February 24, he again visited the hospital on account of a slight softening of the axillary glands, which now showed fluctuation on palpation. On incision, yellow, odorless pus was evacuated. A number of smears of the pus were prepared and stained with Loeffler's solution. On examination an extremely small bacillus, resembling the tubercle bacillus, and a gram-positive diplococcus were demonstrated.

TESTS MADE AT WASHINGTON, D. C.

Agglutination.—At our request, Dr. Ohara furnished us with blood serums from seven cases which came under his observation. Serums 1, 2 and 3 were received at the Hygienic Laboratory, United States Public Health Service, Washington, D. C., Oct. 27, 1925; serums 6, 7 and 8, November 25; serum 9, Jan. 5, 1926. These were tested for agglutination of *Bacterium tularense* together with proper positive and negative control serums, with the results given in table 2.

Analysis of the table shows that the serums of long-recovered cases 1, 2 and 3 agglutinated *Bacterium tularense* promptly and completely in dilutions of 1:10 and 1:20, and that the serums of cases 6, 7, 8 and 9, taken in the third, fourth and fifth weeks of illness, at the height of agglutinin production, agglutinated *Bacterium tularense* promptly and completely in dilutions of 1 to 10, 20, 40, 80, 160 and 320, but not in higher dilutions. These results are in accord with those obtained when testing tularemia serums collected from long-recovered cases and from acute cases.

Isolation of Culture.—Jan. 5, 1926, we received from Dr. Ohara a portion of a human lymph gland which he had removed from a patient, Nov. 30, 1925. We injected the gland tissue into guinea-pigs, which died acutely manifesting the typical lesions of tularemia—spotted spleen and liver and caseous lymph glands; from these animals we isolated a culture on coagulated egg yolk and glucose cystine agar. This culture was compared with *Bacterium tularense*, with which it was

TABLE 2.—*Agglutination Tests*

Cases of Ohara's Disease	Onset	Time Between Onset of Disease and Date of Collection of Serum
No. 1. Mme. Ohara (R. O.).	Jan. 22, 1925	8 months
No. 2. M. S. (mother).....	Dec. 30, 1923	1 year 9 months
No. 3. T. S. (son).....	Dec. 30, 1923	1 year 9 months
No. 6. A. (male).....	Oct. 8, 1925	24 days
No. 7. Y. (male).....	Oct. 1, 1925	31 days
No. 8. T. (female).....	Oct. 5, 1925	27 days
No. 9. Y. K. (male).....	.....	About 18 days

Antigen	Serums	Serum Dilutions 1:10	20	40	80	160	320	640	1,280
Bacterium tularense	No. 1.....	4	4	2	0	0	0	0	0
Bacterium tularense	No. 2.....	4	4	0	0	0	0	0	0
Bacterium tularense	No. 3.....	4	4	0	0	0	0	0	0
Bacterium tularense	No. 6.....	4	4	4	4	4	4	0	0
Bacterium tularense	No. 7.....	4	4	4	4	4	4	0	0
Bacterium tularense	No. 8.....	4	4	4	4	4	4	0	0
Bacterium tularense	No. 9.....	4	4	4	4	4	4	0	0
Bacterium tularense	Normal.....	0	0	0	0	0	0	0	0
Bacterium tularense	Antitularense	4	4	4	4	4	4	4	0

3. Idogawa, cited by Ohara.
4. Ohara (footnote 1, first reference).

found to agree in its morphologic, biochemical and cultural characteristics.

Animal Inoculations.—Guinea-pigs, rabbits and white mice were inoculated with the culture, and they died acutely manifesting the typical lesions of tularemia; in these animals the infection has now been propagated by animal transfers for a period of two months.

Pathology.—Microscopic sections of the spleens, livers and lymph glands of the experimental animals show the typical histopathology of tularemia.

Agglutinin Absorption.—Antiserums were prepared by immunizing one rabbit against Ohara's strain and another rabbit against an American strain. The two rabbit serums were then compared by methods of reciprocal agglutinin absorption, and resulted in proof of the agglutinogenic likeness of the Japanese and American cultures.

SUMMARY AND CONCLUSION

Dr. Hachiro Ohara's description of the clinical and epidemiologic characteristics of a disease which he has observed in Fukushima City, Japan, agrees even in minor details with the picture of tularemia.

The following tests were made in Washington, D. C., by the United States Public Health Service: 1. Serums collected and forwarded by Dr. Ohara from cases which came under his observation agglutinated *Bacterium tularense*. 2. Glandular tissue removed from a human case and forwarded by Dr. Ohara caused tularemia in laboratory animals from which *Bacterium tularense* was isolated. 3. Reciprocal agglutinin absorption tests failed to distinguish any difference between the Japanese culture and an American culture.

The conclusion is reached that Ohara's disease occurring in Japan and tularemia occurring in the United States are identical.

ANGIONEUROTIC EDEMA

REPORT OF CASE, WITH NECROPSY FINDINGS *

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In 1882, Quincke described a condition characterized by a sudden appearance of localized and circumscribed edema in various regions of the body. He named this condition "acute circumscribed edema." It is usually transient and is not associated with untoward consequences unless the larynx is involved, in which case the person affected may die. Since the publication of the paper referred to, a number of writers have described the condition under various names, for example, Quincke's disease, Quincke's edema, angioneurotic edema, hereditary edema, familial edema, and giant urticaria.

It has been impossible up to the present time to establish a definite etiologic basis for this disease. Apparently, it occurs with equal frequency in the sexes during any period of life, and the lesions have been observed in practically every region of the external surface of the body and in the thoracic and abdominal viscera. The duration of an attack varies from a few hours to six days. It has been suggested that the condition is a manifestation of protein sensitiveness, but evidence is lacking to support the idea. An interesting fact established, however, has to do with the apparent hereditary nature of the condition. This aspect of the subject has been dealt with by Osler,[1] Ensor, the Crowders [2] and Bullock.[3]

The literature describing this disease has been reviewed by Fairbanks,[4] the Crowders [2] and others. In spite of a large number of reports of instances of the disease, many of which terminated fatally, there are few records of postmortem findings. It may be said, however, that reports by Harbitz,[5] Griffith [6] and Morris [7] contain good descriptions of the associated pathologic anatomy. In this communication I report an instance of the disease involving the larynx—death resulting—together with the necropsy findings.

REPORT OF CASE

History.—I. W., a baby girl, aged 14 months, was brought to the New Haven Hospital, where it was pronounced dead. The facts related by the mother are as follows:

The child awoke and was given a cup of milk; a few minutes later it began to cry, and in a short time it appeared to be choking. The tongue was observed to protrude and to have become blue, and the neck became big and hard. The child was rushed to the hospital but died on the way. The admitting physician reported that the body was well developed and well nourished. No swelling was noted about the face. The skin was clear except for patches of eczema on the face. There was generalized enlargement of the superficial lymph nodes. The tonsils were moderately enlarged. On palpation, the pharynx and epiglottis were found to be so thick and boggy that the entrance to the larynx was completely obstructed.

It was learned from the mother that, during the month just past, on several occasions the child had had swellings appear on various parts of the body, but they had disappeared in each instance in a few hours. In particular, the hands and feet, the eyes, and lower lip became twice their natural size. No constitutional symptoms were noted, however. As far as the mother could tell, the child appeared perfectly well the night before the attack already described, which resulted in death. No history could be obtained of any important illness previous to this.

The following considerations about the family history are interesting: There were five children, three boys and two girls. One daughter died under circumstances similar to those described in the case under consideration. A boy, aged 8, had an attack in which swelling began about the eyes and then spread until the nose and throat were involved. Swallowing was difficult and painful. The boy was taken to the hospital, where it was further observed that the tonsils were enlarged and the uvula and posterior pharynx were swollen and edematous. There was no enlargement of the superficial lymph nodes. Ten minims (0.6 c.c.) of epinephrin were administered and the edema decreased within twenty minutes, but did not disappear until twelve hours later. Subsequently, tests were made with a variety of proteins for sensitiveness. A marked reaction was obtained with cat's hair and beef; however, no outstanding disturbance was observed to follow the child's eating beef or playing with a cat.

The other two boys had not shown any symptoms.

Necropsy Report.—Postmortem examination was made six hours after death. Save for some swelling of the left thumb and marked cyanosis of the lips, there were no remarkable external manifestations.

* From the Brady Laboratory of Pathology and Bacteriology, Yale University School of Medicine.

1. Osler, William: Hereditary Angioneurotic Edema, Am. J. M. Sc. **95**: 362, 1888; On the Visceral Manifestations of the Erythema Group of Skin Diseases, ibid. **127**: 1, 1904. Osler and McCrae: System of Medicine **4**: 998, 1915.
2. Crowder, J. R., and Crowder, T. R.: Five Generations of Angioneurotic Edema, Arch. Int. Med. **20**: 840 (Dec.) 1917.
3. Bullock, William: Angioneurotic Oedema, Eng. Lab. Mem. Treas. of Human Inheritance, Part III, 1909, p. 38.
4. Fairbanks: Hereditary Edema, Am. J. M. Sc. **127**: 877, 1904.
5. Harbitz: Kasvistik über Angioneurosen, München. med. Wchnschr. **58**: 2557, 1911.
6. Griffith: Remarks on a Case of Hereditary Localized Edema Proving Fatal by Laryngeal Obstruction, Brit. M. J. **1**: 1470, 1902.
7. Morris: Angioneurotic Edema, Am. J. M. Sc. **128**: 812, 1904; **130**: 382, 1905.

The changes of particular interest were confined to the respiratory system. The wall of the lower posterior and lateral pharynx and the uvula were markedly swollen, pale, and translucent in appearance; the tonsils and tongue were not edematous. There was an extreme edema of the epiglottis, aryepiglottic folds, and the cuneiform and corniculate tubercles, so that their outlines were obliterated, as shown in the accompanying illustration. Only two large, swollen, translucent vertical lips were seen, which completely approximated each other except for a tiny diamond-shaped orifice not more than 1 mm. in its greatest transverse diameter. Each lip measured 2 cm. from its origin on the posterior larynx—at the obliterated interarytenoid notch—to its tip. The tip almost reached the swollen uvula. The trachea and larynx were opened anteriorly so as to obtain a good view of the larynx from below. The swelling extended downward and involved the vocal cords to a moderate extent, but there was no evidence of edema below the cords. The lungs were voluminous and purple. They had a somewhat doughy, homogeneous consistency, and pressure on either lung caused pink, frothy fluid to exude into the trachea. Occasional pinpoint hemorrhages were seen over the pleural surface. Section was made after fixation of the whole specimen. The cut surface appeared homogeneous, and pink fluid exuded from the alveoli and bronchioles.

Edema of the epiglottis and larynx, with almost complete closure of the orifice.

Microscopic examination of the lungs showed edema which involved the alveoli moderately, and the subpleural, peribronchial and interlobular connective tissue markedly. It was shown in some areas by a pink staining, granular material, and in others only by a spreading apart of the tissue. The alveolar walls were congested, and in some of the alveoli a few red blood cells were seen. The bronchioles contained a few desquamated epithelial cells, red blood cells and a little serum. The peribronchial lymphatic tissue was slightly increased. In the wide interstitial bands the blood vessels seemed large, but there were also very conspicuous lymphatics, some with intact and others with ruptured walls. Small hemorrhages or scattered erythrocytes were seen here and there, and not infrequently polymorphonuclear cells, many of them with an eosinophilic granular cytoplasm, were seen in small accumulations or were scattered more diffusely through a wider zone.

In the pharynx, adjacent to the larynx, the picture was also mainly one of edema, which lifted up the mucosa, spread apart glands, muscle bundles and even muscle cells, and extended into the deeper submuscular connective tissues. The blood vessels and lymphatics were moderately dilated. The cells here were chiefly of the small mononuclear type, although a few polymorphonuclears and large mononuclears mingled with them. They were most conspicuous in the submucosa but invaded the lower layer of the mucosa and the intramuscular bands.

The lymphoid tissue everywhere was abundant and hyperplastic. The large pale centers of the malpighian corpuscles in the spleen and of the lymph follicles in the intestines and in the nodes showed numerous mitotic figures.

COMMENT

The condition described above is that of an extreme edema of the respiratory tract, with a mild and variable type of cellular reaction. In some sections of the lungs, the character of the response suggests an early inflammation. In other sections of the lungs and the pharynx the picture is not unlike that sometimes seen following protein sensitization; namely, a predominance of mononuclear cells.

URINARY PROTEINS

CRYSTALLINE PROTEINS OF NEPHRITIS *

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AND
LUDVIG HEKTOEN, M.D.
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Crystalline proteins have been isolated from the urine up to the present time in only eight cases.[1] In the course of work on human blood proteins, difficulty was experienced in obtaining blood for the preparation of sufficient quantities of albumin. This led to an attempt to separate this protein from the urine of patients with nephritis that were eliminating large quantities of protein. In the course of this work it was discovered that, under certain conditions, proteins in the cases studied tended to become crystalline.

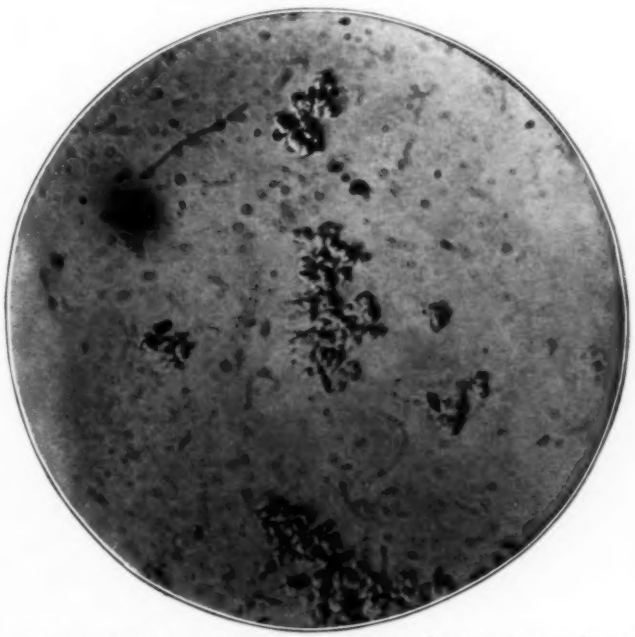

Fig. 1.—Typical globular protein crystals obtained from urine of patients with nephritis.

As a preliminary treatment, the urine was saturated to 25 per cent with ammonium sulphate, left standing

* From the Laboratory of Physiological Chemistry, University of Illinois College of Medicine, the Presbyterian Hospital, and the John McCormick Institute for Infectious Diseases.

1. Bramwell, Byrom; and Paton, D. N.: On a Crystalline Globulin Occurring in the Human Urine, Rep. Lab. Roy. Coll. Phys. Edinburgh **4**: 47, 1892. Magnus and Levy: Ueber den Bence Jones'schen Eiweisskörper, Ztschr. f. physiol. Chem. **30**: 200, 1900. Grutterink and de Graaf: Ueber die Darstellung einer krystallinischen Harnalbumose, Ztschr. f. physiol. Chem. **34**: 393, 1901; **46**: 472, 1905. Schumm and Kimmerle: Ueber das Vorkommen eines krystallisierbaren nicht koagulierbaren Eiweisstoffes im Harn bei einem Falle von Magencarinom, Ztschr. f. physiol. Chem. (Hoppe-Seyler) **92**: 1, 1914. Walters, Waltman: Bence-Jones Proteinuria, J. A. M. A. **76**: 641 (March 5) 1921. Krauss, E.: Studien zur Bence Jones'schen Albuminurie, Deutsches Arch. f. klin. Med. **137**: 275 (Oct.) 1921. Hektoen, Ludvig; and Welker, W. H.: Further Observations on Precipitin Reaction of Bence-Jones Protein, J. Infect. Dis. **34**: 440-446 (May) 1924. Hektoen, Ludvig; Kretschmer, H. L., and Welker, W. H.: A Peculiar Crystalline Protein in Human Urine, J. A. M. A. **83**: 1154-1156 (Oct. 11) 1924.

for a few minutes until flocculation had taken place, and then filtered. The filtrate was placed back on the filter paper until a clear fluid was obtained, which was completely saturated with ammonium sulphate. The precipitate was dissolved with the requisite amount of distilled water giving a protein solution of moderate concentration. This solution was treated with saturated ammonium sulphate solution until a slight, but permanent, flocculent precipitate formed. The mixture was then filtered and refiltered until a crystal clear fluid resulted. The solution was set aside in a crystallizing dish, and usually at the end of twenty-four hours a copious sediment had appeared, which under the microscope was composed of globular crystals of protein, as shown by appropriate tests. After standing for a number of days, but before any gross separation of ammonium sulphate had occurred, the solution was filtered, the sediment on the filter paper dissolved in distilled water and again treated with saturated ammonium sulphate until a slight but permanent precipitate had formed. The solution was filtered and refiltered

Fig. 2.—Needle-shaped protein crystals obtained in second crystallization of proteins obtained from the urine in one of the cases studied.

until clear, and again set aside for crystallization. Again globular crystals of protein appeared at the end of twenty-four hours.

So far, we have studied the urine in ten cases of nephritis, and in all, the globular crystals of protein (fig. 1) have been obtained. In one case the second crystallization yielded definite needle-shaped crystals, as shown in figure 2. Of the ten cases, three were instances of marked hypertension, with no edema; three, of hypertension, with edema, but no decompensation; two, of hypertension with decompensation; one, an acute glomerular nephritis in a child, and one, a marked generalized anasarca of undetermined origin. Of the ten patients, five have died, two in the pure hypertension group, one of hypertension with edema, one in the decompensated group, and the anasarca patient. Necropsies of the two patients with pure hypertension and with decompensated hypertension revealed no changes other than the renal, vascular and cardiac changes common in such conditions.

The proteins obtained on the second crystallization have been tested with specific precipitin serums for human albumin, euglobulin and pseudoglobulin, and all three of these proteins were present in considerable quantities in the crystalline preparations from all the urines studied.

SUMMARY

In ten cases of nephritis, proteins were obtained in the form of globular crystals from the urine. In one instance, the protein appeared as needle-like crystals. Precipitin tests indicate that the protein crystals consist of compounds of serum albumin, euglobulin and pseudoglobulin.

IODIZED SALT IN THE PREVENTION OF GOITER

IS IT A SAFE MEASURE FOR GENERAL USE?*

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During the last year, we have been impressed by a great increase in the incidence of hyperthyroidism and particularly by the appearance of an unusual type of thyroid hyperactivity in men. We have therefore made a special study of these cases with particular reference to the possible etiologic factors involved, and have found that the accumulated evidence seems to point conclusively to the continued ingestion of small amounts of iodine in the insidious form of iodized salt as the primary exciting factor. For this reason, we feel that it is important to call the attention of physicians, and through them of the public, to the misunderstanding that has gradually arisen regarding the use of iodine in endemic goiter, particularly in the form of iodized salt. Without any precaution being given for its use, this salt is being vigorously promoted by the combined propaganda of health officials and of salt companies, who, through the agency of newspaper articles, civic meetings and attractive advertising, have gradually created the impression in the lay mind that iodine is a panacea for all goiter conditions and will ultimately solve the whole endemic goiter problem. For example, the issue of *Hygeia* for February, 1926, contains an advertisement of iodized salt, which includes the following quotations under the caption "What Well-Known Medical Men Say":

"Iodine is almost an absolute preventive of goiter. That has been proved beyond all question. Given in table salt it is a preventive for goiter."—Dr. Charles H. Mayo, in an address before the Wayne County Medical Association, Jan. 26, 1924.

"Iodine is not a medicine. It is simply a replacement of one of the needed elements in food. We urgently ask the people of our city to use iodized salt both for table and cooking."—Dr. C. S. Slemmons, City Health Commissioner, Grand Rapids, Mich.

As a result of such propaganda, during the last year the general use of iodized salt has become very extensive in the Great Lakes and West Virginia goiter regions.

The question as to whether hyperthyroidism is induced by the administration of iodine has been recently discussed by O. P. Kimball,[1] who, by means

* From the Medical Division of the Cleveland Clinic.

1. Kimball, O. P.: Induced Hyperthyroidism, J. A. M. A. 85: 1709-1710 (Nov. 28) 1925.

of a statistical study of cases from the Cleveland Clinic, showed that a large number of the patients had used iodine in some form. His report proved rather conclusively that iodine would activate the thyroid gland to hypersecretion, but he felt at that time that the small amount of iodine contained in iodized salt could hardly be responsible for the production of hyperthyroidism except in cases of long standing adenoma. Since the writing of that article, however, its dangers are becoming more apparent, for iodized salt is now being very much more extensively used by the public than other forms of iodine, such as sodium iodide, iodostarine and compound solution of iodine (Lugol's solution), probably because of the propaganda to insure its use and also because of the fact that when one member of a family is advised to use iodized salt the whole family must use it, as its use in cooking is always advised. This extensive use of iodized salt appears to be a plausible explanation of the fact that between 25 and 50 per cent of all the cases of hyperthyroidism in which operation has been done here during the last six months appeared to have been directly due to or exacerbated by this agent. The wide range of these figures is due in part to the fact that some of the patients had had symptoms of the disease before using the salt, so that we must take into account the possibility that in some of these cases, even though the earlier symptoms were mild, "full-blown" hyperthyroidism might have developed without the use of iodized salt, and in part to the fact that it is impossible in some cases to establish the exact

Analysis of an Unusual Type of Hyperthyroidism in Sixteen Men

Age and Occupation	Duration of Symptoms, Mo.	Duration of Use of Iodized Salt, Mo.	Loss of Weight, Pounds	Weakness	Nervousness	Tremor	Pulse Rate	Blood Pressure	Presence of Goiter Before Taking Salt	Condition of Thyroid on Examination	Exophthalmos	Basal Metabolism Rate	Infection	Pathologic Condition	End-Result
42 Office work	12	18	25	++	++	++	104	166/70	Slight	Soft vascular, bruit	Slight	+30	Teeth questionable	Colloid goiter	No improvement after operation; when 3 months later similar cases called attention to use of iodized salt and he stopped its use, improvement resulted
41 Electrical engineer	6	12	45	++++	++	++	150	110/70	None	Small, scarcely palpable, firm	Slight, staring	+49	Abscessed teeth	Hyperplasia	Use of iodized salt not discovered until after operation; marked improvement on discontinuance
39 Real estate dealer	6	12	6	++	++	++	130	130/70	Not noticed	Very slight edema of right lobe	Slight, staring	+50	Abscessed teeth	Not operated on	Slight improvement after two months rest
35 Office work	2	6	12	++	++	++	104	144/70	None	Soft, small struma, not visible	Slight, staring	+29	Teeth questionable; not roentgenographed	Refused operation	No improvement after three months rest
43 Office work	8	12	56	++++	++	+	132	168/58	None	Moderate diffuse enlargement with bruit and thrill	Slight exophthalmos	Not taken	Chronic tonsillitis	Operation advised	Did not return for operation
32 Clerk	12	24	30	+	+	+	110	130/70	Not noticed	Normal	Slight, staring	+26	Two teeth recently extracted	Not yet operated on	
34 Clerk	3	12	40	++	+	+	120	120/80	Not noticed	Firm, moderate size bilateral enlargement	None	+47	Marked oral sepsis	Colloid goiter	Excellent condition
39 Inventor	6	18-24	30	++++	++	+	140	110/65	Not noticed	Scarcely palpable	None	+34	Abscessed, infected tooth, tonsils	Colloid goiter	Excellent condition; gain of 15 pounds in 3 weeks
35 Manager of store	9	12	20	++	+	++	120	130/60	Not noticed	Fairly soft, slightly enlarged	Slight	+56	Questionable teeth	Fetal adenoma, colloid goiter	Improvement; gain of 15 pounds; marked tremor still present; continued use of iodized salt just discovered
51 Grocer	5	8	15	++++	+	+	118	144/66	Not noticed	Scarcely palpable	Very slight	+71	Questionable teeth	Refused operation	Slight improvement in 6 weeks under medical treatment
35 Merchant	7	18	40	++++	+	+	128	146/62	Not noticed	Scarcely palpable	Slight, staring	+41	Oral sepsis	Ligated only	Improvement
32 Office work	1	8	8	+	+++	+++	92	140/80	None	Very small, firm, struma	None	Not taken	Suspicious teeth	Colloid goiter	Marked improvement
45 Office work	6	12	22	+	+	+	110	115/60	Slight goiter	Soft, nodular moderate size	None	+68	Abscessed teeth, removed recently	Fetal adenoma with colloid goiter	Marked improvement
37 Road building	5	24	37	+	+	+	120	145/70	None noticed	Small nodular goiter	None	Not taken	Chronic tonsillitis	Slight hyperplasia	Marked improvement
45 Postman	2 wk.	5 wk.	15	++++	+	++	106	140/70	Large goiter congenital	Large, soft, vascular goiter recently grown smaller	None	Not taken	Abscessed teeth	Not operated on	Condition worse
42 Biochemist	1	3	8	+++	++	+	104	114/50	Goiter for number of years	Soft vascular goiter	None	Not taken	Abscessed teeth	Not operated on	Operation advised; after two months rest no improvement

time relation between the onset of the symptoms and the initial use of the salt. But even when these facts are taken into consideration, the relation between the use of iodized salt and the disease is so definite in the minimum number of cases, 25 per cent, as to leave little doubt as to its rôle.

REVIEW OF CASES

Because of the difficulties in collecting exact statistical information regarding these cases of hyperthyroidism *en masse,* it seems more conclusive to offer, as proof of the dangers of this salt, data from the group of cases in men, which first called our attention to this problem. Since individual case reports consume much space and include details not pertinent to our subject, the essential points in the history and examination of each patient have been grouped in the accompanying table. These patients were all in excellent health before the onset of toxic symptoms, and in only two cases was the iodine used because of a supposed need of the patient himself, the other patients being "innocent victims" of the general use of the salt in the family cooking.

A study of these cases revealed the following interesting features:

(*a*) With the exception of the postman, all the patients were engaged in mental work, and even in his case a sudden increase in the number of new names which he had to memorize was causing him a great deal of worry.

(*b*) There was a striking uniformity in age.

(*c*) The onset of symptoms was invariably associated with the use of iodized salt, being first noted from one to eighteen months after the use of the salt was begun.

(*d*) In most of the cases the first symptom noticed was loss of weight or marked weakness, particularly of the legs; the nervous and cardiac symptoms appeared later, the symptoms usually appearing in a reverse order in the noninduced form of hyperthyroidism.

(*e*) Exophthalmos was almost invariably absent, the ocular signs being limited to a staring expression.

(*f*) The thyroid differed markedly from the usual type, as it was almost invariably a small, firm and scarcely palpable gland rather than the usual palpable, vascular gland with thrill and bruit; in two of the exceptional cases, iodized salt had been used for the cure of the goiter.

(*g*) The pathologic report in these cases, usually "colloid goiter" or "very mild hyperplasia," was also strikingly different from that usually given in cases of hyperthyroidism; this circumstance is in accord with the conclusions of Reinhoff,[2] which will be mentioned later.

(*h*) The presence of foci of infection was demonstrated or suspected in every case, and it would be interesting to try to trace their influence in the production of the hypersensitive condition which can be so affected by iodized salt.

(*i*) The high incidence of this disease in men during the last six months, as compared with the very low incidence which our previous experience had led us to expect, has been very striking; the most plausible explanation that we can offer is the fact that men as a rule use a great deal of salt.

While these are cases of frank hyperthyroidism, presenting all the features of exophthalmic goiter, it is evident that they differ strikingly in many ways from the average male case of hyperthyroidism. Previous to the past year, such cases have rarely been seen in the Cleveland Clinic, although, on an average, 1,500 cases of hyperthyroidism are seen here annually. When, therefore, sixteen of these patients presented themselves within six months, every one of whom had used iodized salt, while during this time no cases of acute hyperthyroidism in men were seen who had not used the salt, the evidence seemed conclusive that iodine in this form would arouse even a normal thyroid gland to hyperactive secretion. In fact, after the riddle of the causation of this condition was solved, it was easy to astonish such a patient, when he had made a brief statement of his complaint, with the query: "How long have you been using iodized salt?"

In addition to these cases in which there seems to be no question that hyperthyroidism was induced, I wish to mention briefly other groups of cases which, although the symptoms and signs do not differ from the usual picture of this disease, seem to belong also in this category. We have been convinced that this is the case, not only by the great increase in the incidence of hyperthyroidism since the use of iodized salt has been in vogue, but also because in each instance the onset of the symptoms has followed shortly after the initial use of the salt.

Among these groups, that in which the evidence was perhaps most conclusive was composed of eighteen women between the ages of 45 and 65. Their histories were identical in almost every respect. In every instance the patient had had a large neck or a lump in the neck throughout adult life but had never had any trouble until a friend, the grocer, or an article or advertisement in a newspaper had persuaded her that iodized salt was good for goiter, and she had begun to use it in cooking. At intervals varying from two to twelve months, these patients had become very weak, had lost weight, had grown nervous and short of breath, and had developed palpitation and, in many cases, irregularity of the heart. Some of the patients had no conception between these symptoms and their goiters, and were jubilant over the fact that the latter had decreased in size with the use of the salt. Examination revealed a fetal or large colloid adenoma in every case, with the usual signs of hyperthyroidism, particularly degeneration of the heart muscle with decompensation. Auricular fibrillation was present in twelve of the eighteen cases. The basal metabolic rate was taken in nine of these cases and was found to range from plus 25 to plus 90. Thirty-two other patients might be included in this group of middle aged women with adenomas, but they had had symptoms before using the salt; in fact, each of them had used it because she had been told that her trouble was due to her goiter, and each hoped to be cured by using the iodized salt. The resulting exacerbation of the symptoms was so severe that an operation was necessary in each of these cases. Moreover, the cardiac decompensation was so marked in many of the cases that the operative risk was greatly increased. The medical profession has always considered that this type of goiter is extremely susceptible to the effects of iodine, and therefore has exercised great care in its administration; but unfortunately this precaution has been overlooked in the enthusiasm over the new "cure."

Another type of patient has also appeared at the Cleveland Clinic more frequently than usual during

2. Reinhoff, W. F.: Bull. Johns Hopkins Hosp. 37: 285-305 (Nov.) 1925.

the last six months, a type of case in which it has always been thought that iodine could be administered almost ad libitum—young girls at the age of puberty, either with or without a struma. Five cases of outspoken and extremely severe hyperthyroidism in girls from 12 to 18 years of age have been seen during this period, and in all these cases the hyperthyroidism developed after the use of iodized salt was begun. Small fetal adenomas were present in two cases and moderately large, uniformly shaped goiters with a slightly increased vascularity in the other three. Besides these outspoken cases there have been a large number of patients in this age group who, having small goiters, have used iodized salt and have subsequently developed very mild nervous symptoms, and have noticed a decrease in their powers of endurance and in their efficiency. Although these cases are classified as adolescent colloid goiters, they seem to show a mild degree of toxicity.

The recurrence of hyperthyroidism in three patients who had enjoyed good health from four to thirteen years after thyroidectomy was also attributed to the use of iodized salt. It should be noted that after an operation for hyperthyroidism patients are highly sensitized to iodine, and therefore special precaution should be exercised against its use in postoperative cases.

Very few cases of outspoken hyperthyroidism were seen in patients between the ages of 20 and 35, but there were many who, after using the salt, had suffered from nervous symptoms such as insomnia, irritability, depression, lack of concentration, emotional disturbances, sweating, flushing, palpitation of the heart, paroxysmal tachycardia, and had noticed a loss of weight and lack of endurance which could not be explained except as the effect of the iodine. This explanation seems the more plausible because some of these symptoms were the earliest ones in the cases in which a frank hyperthyroidism developed.

It may not be amiss to mention here two facts which have been noted in our dermatologic department within the last six months; first, that iodine rashes have been appearing frequently, and, second, that cases of acne vulgaris become much worse or will not respond to treatment while iodine is being used in the form of salt.

HISTORY OF GOITER TREATMENT

These many instances of unfavorable results following the use of iodized salt make us feel that it is surprising that any one would advocate its use. However, it is only natural that it should be advocated and advised when one traces the relation of iodine to goiter and sees how every step in the development of the latter seems to prove that small amounts of iodine administered in a natural way will solve the problem of endemic goiter. The early Greeks were the first to use iodine in the treatment of goiter. They used for this purpose the ashes of burnt sea sponges, which contain a large amount of iodine, but they did this without knowing the active element. It was not until 1820 that Coindet reported that goiter could be reduced in size by the use of iodine. In 1856, Chatin observed that goiter was very prevalent in localities in which the iodine content of the soil and water was low—probably because the solvent action of melting glaciers carries the iodine to the sea—and suggested that it could be prevented by supplying this deficiency. In 1896, Bauman discovered that iodine is stored in the thyroid gland in large quantities. In spite of these discoveries, however, very little was known regarding the action of iodine on the thyroid gland until 1907, when Marine [3] and his co-workers began their classic studies of the effect of iodine on the structure of the thyroid gland. They concluded that all thyroid hyperplasia was essentially the same and due to a lack of certain nutritional elements in the food, and that a resting state could be induced by the administration of iodine. As a result of this experimental work in animals, Kimball,[4] under the direction of Marine, began the systematic study of the prevention of simple goiter in man, by giving iodine in small amounts to several thousand school children in Akron, Ohio, from which he derived the following conclusions:

1. Simple goiter can be prevented by the administration of small amounts of iodine.
2. One third of the cases of uncomplicated simple goiter disappear or are markedly decreased by the internal administration of a small amount of iodine.
3. The administration of small amounts of iodine does not produce a toxic condition (exophthalmic goiter).
4. The administration of 2 Gm. of sodium iodide, twice yearly, is practical and economical and can be recommended as a public health measure in goiter districts.

This investigation led to great activity on the part of public health officials, and many methods were suggested for the efficient and economical administration of the iodine. Tablets containing definite amounts of iodine seemed to be the method of choice, but their use could not be made general or compulsory. Rochester, N. Y., tried putting iodine in the city water supply, but this did not seem practical, owing to the great waste. It was only natural that the addition of iodine to table salt should be tried, and in May, 1924, Michigan adopted a state law that all salt sold in the state should contain a certain amount of iodine. Goiter prevention was popularized by magazine articles, by instruction in schools and by medical lectures, until the laity has very generally gained the impression that small amounts of iodine can be taken with perfect safety. A circumstance that has tended to lead the profession to the unguarded use of iodine has been the apparent contradiction of the old idea fostered by Oswald and Crile that iodine acted unfavorably in cases of hyperthyroidism, by the discovery of Boothby and Plummer [5] that, when small amounts of iodine in the form of compound solution of iodine are given over a short period of time to patients suffering from hyperthyroidism caused by true hyperplasia and not by a toxic adenoma, they show a marked improvement, which is manifested both clinically and by the reduction of the basal metabolic rate. This discovery confirmed Marine's belief that iodine would cause the hyperplastic thyroid to return to the resting state, which in turn has been confirmed by Reinhoff, who studied the histology of the hyperplastic thyroid in man before and after the administration of iodine and found that the gland tends to assume the normal resting colloid state under iodine therapy.

COMMENT

All of the foregoing observations, at first glance, seemed to show that the problem of endemic goiter had been solved in a very easy and simple manner.

3. Marine, David; and Williams, W. W.: Relation of Iodine to Structure of Thyroid Gland, Arch. Int. Med. **1**: 349-384 (May) 1908.
4. Kimball, O. P.: Am. J. M. Sc. **163**: 634-649 (May) 1922.
5. Boothby, W. M., and Plummer, H. S.; J. Iowa M. Soc. **14**: 66-73 (Feb.) 1924.

However, as far as the use of iodized salt is concerned, the following factors must be taken into account:

1. Kimball and Marine worked entirely with children who, as a rule, are immune to the effects of iodine, whereas the use of iodized salt is generally not limited to children.

2. In Kimball's investigation, iodine was given periodically twice a year, thus allowing the thyroid a period of rest, whereas iodized salt is given continuously.

3. Kimball's conclusions were based on cases of simple and uncomplicated goiter, which, moreover, were observed frequently, whereas most cases of chronic goiter in adults are adenomatous in character, and these patients are not under observation while taking iodized salt.

4. Boothby and Plummer found the effect of iodine in cases of hyperthyroidism to be temporary and short lived and suitable only for the preparation of patients for operation. They found also that it was contraindicated in cases of hyperthyroidism due to toxic adenoma. Unfortunately, their work was eagerly accepted and not infrequently misinterpreted by enthusiasts, with the result that all kinds of goiter have been treated with compound solution of iodine. Many cases could be cited in which the thyroid gland has been hyperactivated in this way.

Both Dr. Crile and Dr. Phillips of this clinic are deeply interested in the subject, and they agree with me that, in view of the facts that have been cited, the community use of iodine may produce, especially in adults, an incidence of thyroid disturbance of greater economic importance than the evil it is designed to abolish, and that the general use of iodine will never be free from danger unless it is supervised by the medical profession, with safe standards for the administration of this potent drug. It seems to us to be necessary that a more thorough knowledge of what is known of the physiology and pathology of the thyroid gland be widely disseminated, lest a fundamentally sound movement for the prevention of goiter kill itself by its own boomerang. For this reason, it may not be amiss to append our own conclusions regarding the proper and safe use of iodine.

CONCLUSIONS

1. Iodine administered in small quantities, periodically, to children under the age of puberty is a very efficient preventive of simple goiter. Its use should be begun early and continued until puberty.

2. At the age of puberty, before iodine is prescribed, a careful examination of the thyroid gland should be made by a physician, to determine whether or not fetal adenomas are present. When adenomas are present, if iodine is used at all, it should be used with great caution, and in all cases the patient should be warned to discontinue the iodine should the usual symptoms of hyperthyroidism occur.

3. The continuous use of iodine over a long period of time should never be prescribed for adults, and when its periodic use is prescribed, frequent observations of the pulse and weight should be made.

4. Under no circumstances should iodine be administered to adults with fetal adenomas, either with or without symptoms of hyperthyroidism, except for a short period preceding operation. In the occasional case in which there is temporary improvement, the patient will be lulled to false security, and eventually a marked overactivity of the gland will result if the use of iodine is continued.

5. In the case of an adult patient who has a simple large colloid goiter or a large colloid adenomatous goiter without fetal adenoma, iodine sometimes has remarkably beneficial results and may be tried, but only with extreme caution, as it is this type of goiter that may become suddenly and overwhelmingly active, so that what appears one week to be a wonderful clinical result in every way may be a fulminating case of hyperthyroidism the next week, with a basal metabolic rate of plus 75 to 100, marked asthenia and a loss of from 5 to 10 pounds (2 to 4 Kg.) in one week.

6. If compound solution of iodine or iodine is administered in cases of exophthalmic goiter in which operation is not to be done, it should be discontinued or very greatly reduced when the basal metabolic rate is lowered and clinical symptoms improve. Continued use of the iodine will often again overactivate the thyroid gland.

7. Iodine should not be administered to a patient who has recovered after a thyroidectomy unless hypothyroidism exists, and even in these cases thyroid extract is usually more satisfactory.

8. Iodine is most efficiently administered and controlled in the form of chocolate tablets containing 10 mg. of organic iodine, or compound solution of iodine (Lugol's solution) when this is given under medical supervision. Periodic administration of iodine is always preferable.

9. Iodine may be administered in small doses to the pregnant woman for the prevention of goiter in the fetus. It is supposed to prevent fetal adenoma as well as colloid goiter. The amount of iodine required for this purpose is exceedingly small, and the best form in which to administer it is the chocolate tablet. Extreme caution must be used, as the thyroid gland is in a very unstable condition during pregnancy, and iodine may cause it to become hyperactive.

10. When overactivity of a thyroid gland has been induced by iodine, it usually does not subside when the iodine is discontinued, just as hyperactivity of the gland due to any other cause may not subside with the withdrawal of the exciting agent. In either case an operation is usually required.

In conclusion, I wish to state that this article is in no way a criticism of the principle of goiter prevention as a whole, for in this field lie untold possibilities for the future. The criticism is directed solely against the fallacious ideas regarding the use of iodine which have gained such wide publicity. Community administration of iodine disregards physiologic facts regarding the effect of iodine on the thyroid gland. The use of iodized salt, in particular, should be discontinued or limited absolutely to periodic table use by children under the age of puberty.

Euclid Avenue at Ninety-Third Street.

The Only Way to Joy and Enlightenment.—Sit straight and motionless, never inclining to the left hand nor to the right, never bowing forward nor turning backward. The ears should be in the same plane with the shoulders, and nose and navel in the same straight line. The tongue should stick to the upper jaw, while lip meets lip and teeth with teeth. Open the eyes not too widely yet not too slightly, and keep breathing through the nose. After composing mind and body in this way, you may take a long deep breath. Thus sitting motionless you may think of not thinking. Can you think of not thinking? This is thinking of nothing . . . it is the only way to great calm joy. This is unpolluted practice, and this is enlightenment.—Harada: The Faith of Japan, p. 89.

SALMON IN A DIET FOR THE PROPHYLAXIS OF GOITER*

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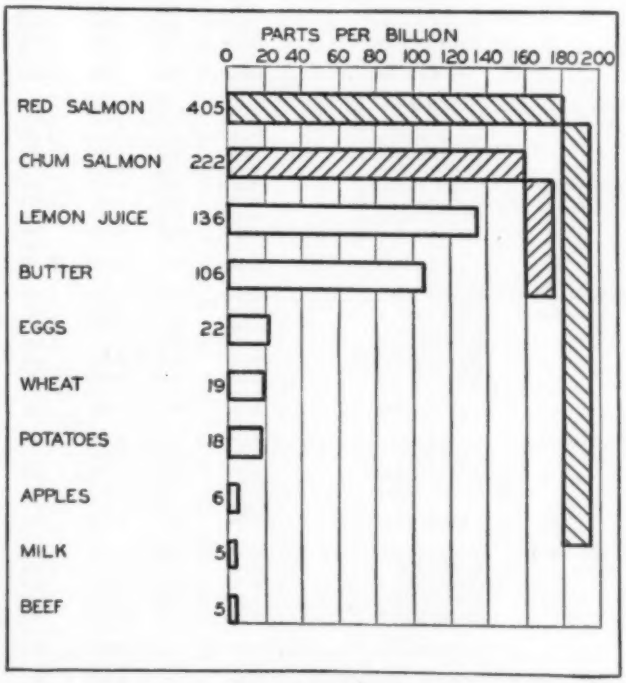
The researches of Chatin [1] on the distribution of iodine in nature, and his conclusion that goiter was due to a deficiency of this element, have been the subject of much discussion. It is now generally believed that iodine deficiency is the immediate cause of simple goiter, and that this disease is readily combated by a prophylactic treatment that supplies the amount of iodine necessary for the normal functioning of the thyroid. This may be accomplished by increasing the iodine in the diet by use of the proper foods, or by the administration of compounds of iodine.

Fellenberg [2] made a comprehensive study of the distribution of iodine in foods, beverages, soil and air. He found that the intake and excretion of iodine were approximately equal on a low iodine diet, but that, by the addition of iodine in such forms as cod liver oil, sardines, butter or potassium iodide, a positive iodine balance was obtained. McClendon and Hathaway [3] found that foods produced in goitrous regions contain less iodine than those produced in nongoitrous regions. They conclude that "the recession of goiter that has taken place in New York State during recent times is due to the greater transportation facilities for sea food into the inland regions."

Certain facts in support of the hypothesis that goiter is an iodine deficiency disease stand out in the observations of Keith [4] on goiter in the Pemberton Valley of British Columbia. This valley lies in the Coast Range Mountains, about ninety miles north of Vancouver. Every white child born in this valley had a goiter, and many white adults developed it within a few months after settlement there. Live stock suffered to such an extent from abnormalities of the thyroid that no litter of pigs lived more than one day after birth. There was a mortality of 90 per cent in calves and 85 per cent in colts from this cause. At the same time, no cases of goiter could be found among the inhabitants of an Indian village which had been located in the same spot in this valley many years before settlement by the white man; furthermore, these Indians have no knowledge or tradition of any of their tribe ever having had goiter. Clark and Pierce [5] show that the Indian is not racially immune to goiter. The pigs feeding in and around the village rarely suffer from myxedema or other diseases of the thyroid. In regard to the freedom of these Indians from goiter, Keith says, "Whilst considering the lack of goiter among these Indians I would like to draw attention to the fact that they eat a great deal of salmon . . . and annually cure thousands for winter use. Their pigs also eat the dead salmon washed ashore on the gravel banks of the stream. It is quite probable that the Indians and their pigs get enough iodine from the salmon to give their thyroids the necessary quantum of this element."

In the Great Lakes region, where goiter is endemic, butter is the most valuable local source of iodine.[6] We found that red and chinook salmon contain four times as much iodine as butter. There are other sea foods, such as lobster and oysters, that are higher in iodine content than salmon. Indeed, seaweeds have the highest iodine content of any foodstuff.[7] But lobster and oysters are higher in price than salmon, and limited in supply. It has not yet been possible to induce the general public to use seaweed in any quantity. American canned salmon is a staple food, produced in quantity; this, with its comparative cheapness and availability, renders it a very valuable food in a diet for the prevention of goiter. The accompanying chart illustrates graphically the iodine content of two of the five species of salmon containing the highest and the lowest amounts of iodine, contrasted with that of milk, meat, eggs, vegetable and fruit products, highest in iodine.



Iodine in various food products (moist basis).

EXPERIMENTAL

When the iodine of a large number of food samples is to be determined, Tressler and Wells' [8] modification of Fellenberg's technic is most satisfactory. The method is capable of detecting very minute quantities of iodine. The apparatus required is inexpensive, and a considerable number of determinations may be made at one time.

The results of the analyses on canned salmon are given in the table. An attempt was made to secure samples from all the principal salmon canning districts. It will be noted that there is considerable variation

* From the Laboratories of the Northwest Branch, National Canners Association, and College of Fisheries, University of Washington, Seattle.

1. Chatin, A.: Compt. rend. Acad. d. sc., 1850.
2. Von Fellenberg, T.: Untersuchungen über das Vorkommen von Jod in der Natur, Mitt. a. d. Geb. d. Lebensmitteluntersuchung u. Hyg. **14**: 161-24, 1923.
3. McClendon, J. F., and Hathaway, J. C.: Inverse Relation Between Iodin in Food and Drink and Goiter, Simple and Exophthalmic, J. A. M. A. **82**: 1668-1672 (May 24) 1924.
4. Keith, W. D.: Endemic Goiter, Canad. M. A. J. **14**: 284-289, (April) 1924.
5. Clark, Taliaferro; and Pierce, C. C.: Endemic Goiter, Pub. Health Rep. **29**: 939-948, 1914.
6. McClendon, J. F.: Personal communication to the authors, 1925: "Salmon is a very good food for its iodine content alone. It is even better than butter from this region, which is our greatest local source of iodine."
7. Turrentine, J. W.: Combating Goiter with Foods, Canning Age **6**: 977-981 (Dec.) 1925.
8. Tressler, D. K., and Wells, A. W.: Iodine Content of Sea Foods, Doc. 967, Bur. of Fish, 1924.

between the species, and even some variation within the same species from different districts. In general, it has been found that as the salmon approaches the spawning stage, the iodine content of the flesh is decreased, apparently passing into the melt and roe, since these contain much more iodine than the flesh. The salmon used in such large quantities as food by the Indians of the Pemberton Valley were taken at this spawning stage. Even the flesh of these spawned-out salmon proved to be of great prophylactic value in an extremely goitrous region.

Iodine Content of Canned Salmon by Species and by Districts

Species	District	Moist Basis: Iodine, Mg. per Kg.	Moist Basis: Iodine, Parts per Billion	Dry Basis: Iodine, Mg. per Kg.	Dry Basis: Iodine, Parts per Billion
Red (sockeye, blueback)	Ust-Kamchatka (Siberia)	0.497	497	1.408	1,408
	Bristol Bay	0.422	422	1.432	1,432
	Cook Inlet	0.495	495	1.512	1,512
	S. E. Alaska	0.248	248	0.845	845
	Puget Sound	0.632	632	1.842	1,842
	Columbia River	0.140	140	0.392	392
	All districts	0.405	405	1.246	1,246
King (chinook, spring)	Yukon River	0.313	313	0.769	769
	Bristol Bay	0.470	470	1.437	1,437
	Cook Inlet	0.523	523	1,421	1,421
	S. E. Alaska	0.305	305	0.894	894
	Puget Sound	0.355	355	0.999	999
King (white)	Puget Sound	0.202	202	0.489	489
Chinook (king)	Columbia River	0.405	405	1.131	1,131
	Oregon coast	0.368	368	0.957	957
	Klamath River	0.332	332	0.906	906
	All districts	0.364	364	1.000	1,000
Coho (medium red, silver)	Bristol Bay	0.303	303	1.019	1,019
	Cook Inlet	0.132	132	0.432	432
	S. E. Alaska	0.142	142	0.474	474
	Puget Sound	0.380	380	1.232	1,232
	Washington coast	0.119	119	0.445	445
	Oregon coast	0.102	102	0.586	586
	All districts	0.206	206	0.698	698
Pink (humpback)	Bristol Bay	0.135	135	0.486	486
	Cook Inlet	0.249	249	0.917	917
	S. E. Alaska	0.118	118	0.388	388
	Puget Sound	0.555	555	1.811	1,811
	All districts	0.264	264	0.900	900
Chum (calico, keta)	Yukon River	0.238	238	0.738	738
	Bristol Bay	0.302	302	1.247	1,247
	Cook Inlet	0.184	184	0.617	617
	S. E. Alaska	0.167	167	0.004	604
	Puget Sound	0.258	258	0.905	905
	All districts	0.242	242	0.822	822
Grand average, all species, all districts		0.296	296	0.933	933

The salmon of commerce is packed at an earlier stage of maturity, when the iodine content of the flesh is considerably higher.

The iodine content of fresh salmon is approximately that of canned salmon produced from the same region. We found no apparent loss in the canning operations. The amount of iodine added in canning salmon by the one-fourth ounce of salt used per pound can is negligible. Those edible portions of the body richest in fat have been found to be highest in iodine content. Fresh salmon is now packed in ice, or frozen, and transported considerable distances inland; but this use of salmon is small compared to that of the canned product.

The correlation between low iodine content in soil, water and food, and the incidence of goiter, is well established. Iodine metabolism experiments indicate that even in goitrous regions a properly selected diet will prevent goiter.[9] Salmon has at least equal grounds for consideration with milk products, fruits and leafy vegetables, the materials used in these experiments and found of value in the prophylaxis of goiter. Our results indicate a much higher iodine content in salmon than Fellenberg found in milk products, eggs, leafy vegetables or fruits. A considerable portion of the iodine in fruits is contained in such inedible portions as the rind and seeds. Canned salmon consists only of the edible portion, in which all the iodine may be utilized.

It appears that the systematic use of sea foods which are rich in iodine would be of considerable benefit in treatment of simple goiter, or for its prevention in goitrous regions. Canned salmon, on account of its cheapness and availability, is particularly suitable, and should be included in the diet of patients.

9. Von Fellenberg, T.: Untersuchungen über den Jodstoffwechsel, I, Biochem. Ztschr. **142**: 246, 1923.

DOSAGE OF TOXIN FOR ACTIVE IMMUNIZATION AGAINST SCARLET FEVER *

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The method of immunization against scarlet fever recommended by the Scarlet Fever Committee requires five doses of 500, 1,500, 5,000, 15,000 and 20,000 skin test doses of toxin as a minimum, respectively, with an interval of one week between doses.[1] The requirement of five injections in addition to a diagnostic test before and after treatment is a serious drawback from a public health point of view. People are accustomed to three injections in typhoid and diphtheria immunization, and if scarlet fever immunization could be accomplished in this number it would be of great advantage.

This paper is a preliminary report of an attempt to determine whether it is possible to produce just as great, or greater, immunity from three as from five doses. This involved an effort to find the maximum dosage of scarlet fever toxin that could be administered without injurious effects on the individual, and the minimum dosage necessary to produce an immunity comparable to that resulting from an attack of scarlet fever. The effect of varying the time intervals between doses was also studied.

EXPERIMENTS

Dick tests were made on a group of persons, and those giving positive reactions were used for the immunization experiments. A small group was studied first to determine the safety of using a larger number of skin test doses than previously recommended, particularly in the second and third injections. Following on the suggestive findings with this small number, a study was made of a group of ninety-seven persons, varying dosages and varying time intervals being used between doses. The dosage indicated as optimal in this group was then used in the immunization of a group of twenty-four susceptible persons.

Dosage and Time Interval.— In all cases, the first dose was 500 skin test doses, since it has been found that initial injections of more than this amount frequently give quite severe reactions, such as headache, nausea and vomiting and also a scarlatiniform rash.[2]

* From the Michigan Department of Health.

1. Official Communication, Scarlet Fever Committee, Jan. 5, 1926.

2. Dick, G. F., and Dick, Gladys H.: Results with Skin Test for Susceptibility to Scarlet Fever, J. A. M. A. **84**: 1477 (May 16) 1925.

The second injection varied from 2,500 to 5,000 skin test doses and was given one week after the first in one group and two weeks after the first in another group. The third injection varied from 10,000 to 40,000 skin test doses, and the interval between the second and third injections varied from one to three weeks.

Method of Injection.—Intramuscular injection of the scarlet fever toxin was employed after comparing this method with the subcutaneous one in groups of persons and finding, in general, a less severe local reaction from the intramuscular method. The toxin was injected deep into the deltoid muscle, a 1½ inch 22 gage needle being used.

Dick Tests After Treatment.—In order to determine the relative degree of immunity produced by the various methods of treatment, each person was tested with 1, 2, 5 and 10 skin test doses, respectively. A control test was also made on each person, a toxin with a potency of 5 skin test doses per 0.1 cc., which was heated at 100 C. for forty-five minutes, being used.

Toxin Used for Tests and Treatment.—Initial Dick tests were performed with a toxin standardized by comparison with a Dick toxin of known strength. It contained 1 skin test dose per 0.1 cc. of 1:2,000 dilution. For the final Dick tests after treatment, dilutions of this toxin were prepared so that 0.1 cc. contained 1, 2, 5 and 10 skin test doses, respectively. For the immunizing injections, Dick toxin was employed, which was tested before and after the period of experimentation, to check the number of skin test doses per cubic centimeter and to check the correctness of the calculated number of skin test doses in the various injections.[3]

Interpretation of Dick Readings.—The following interpretation is made in the recording of the Dick tests in the various tables: A reaction showing an inflammatory area of less than 1 cm. and greater than 0.25 cm. in diameter is considered ±, or a doubtful reaction. Reactions of 1 cm. and less than 2 cm., +; reactions of 2 cm. and less than 3 cm., ++; and those greater than 3 cm., +++. Tests showing an inflammatory reaction of 0.25 cm. or less in diameter are considered negative.

TABLE 1.—*Clinical Pathologic Changes Following Relatively Large Doses of Toxin for Third Injection.*

					Clinical Reaction			Laboratory Findings											Dick Test After Treatment			
								Urine Analysis			Hematology											
												Differential Leukocyte Count										
Number	Age	Initial Dick Test	Number Skin Test Doses Injected	Time of Observation	Temperature	General	Rash	Albumin	Sugar	Microscopic	Leukocyte Count	Neutrophils	Eosinophils	Basophils	Large Lymphocytes	Small Lymphocytes	Monocytes	Blood Chemistry: Nonprotein Nitrogen	1 Skin Test Dose	2 Skin Test Dose	5 Skin Test Dose	10 Skin Test Dose
1	21	+	20,000	Before treatment	....	.....	.....	—	—	..	8,800	53	..	1	2	34	10	.....				
				After treatment (15-20 hr.)	99.0	.....	?	—	—	..	15,000	75	..	2	1	18	4	.....	—	—	—	±
2	20	+	20,000	Before treatment	....	.....	.....	—	—	..	6,600	46	..	..	4	44	6	.....				
				After treatment (15-20 hr.)	99.8	.....	.....	—	—	..	11,400	67	..	..	3	19	11	.....	—	—	—	±
3	22	+	20,000	Before treatment	....	.....	.....	—	—	..	10,000	75	1	..	..	22	2	.....				
				After treatment (15-20 hr.)	99.6	.....	.....	—	—	..	11,600	77	..	..	..	21	2	.....	—	—	—	—
4	17	+	20,000	Before treatment	....	.....	.....	—	—	..	19,500	82	..	..	4	8	6	29.41				
				After treatment (15-20 hr.)	100.6	Headache	.....	—	—	..	15,500	87	..	..	1	9	3	31.41	—	—	—	—
5	24	+	20,000	Before treatment	....	.....	.....	—	—	..	8,200	59	..	..	3	36	2	.....				
				After treatment (15-20 hr.)	99.2	Headache, nausea	.....	—	—	..	9,000	65	1	..	2	26	6	.....	—	—	±	+
6	18	+	25,000	Before treatment	....	.....	.....	+	—	..	11,150	65	..	..	2	32	1	35.09				
				After treatment (15-20 hr.)	99.2	Slight nausea	.....	—	—	..	14,200	70	..	..	1	26	3	28.98	—	±	±	+
7	17	+	25,000	Before treatment	99.2	.....	.....	—	—	..	7,400	59	1	..	2	30	8	.....				
				After treatment (15-20 hr.)	99.6	.....	.....	—	—	..	.....	..	..	..	..	..	..	.....				
				After treatment (2 wk.)	....	.....	.....	—	—	—	.....	..	..	..	..	..	..	.....	—	—	—	—
8	17	+	25,000	Before treatment	98.4	.....	.....	—	—	..	6,700	54	..	..	6	24	16	.....				
				After treatment (15-20 hr.)	98.4	.....	.....	—	Trace	..	.....	..	..	..	..	..	..	.....				
				After treatment (2 wk.)	....	.....	.....	—	—	—	.....	..	..	..	..	..	..	.....	—	±	±	+
9	25	+	30,000	Before treatment	99.0	.....	.....	+	—	..	8,700	57	3	..	2	32	6	.....				
				After treatment (15-20 hr.)	98.4	.....	.....	—	Trace	..	.....	..	..	..	..	..	..	.....				
				After treatment (2 wk.)	....	.....	.....	—	—	—	.....	..	..	..	..	..	..	.....	—	—	—	—
10	24	+	30,000	Before treatment	99.4	.....	.....	+	—	..	7,000	69	..	..	3	26	2	.....				
				After treatment (15-20 hr.)	100.2	Headache	Slight	—	+	..	9,100	83	2	..	..	11	4	.....				
				After treatment (2 wk.)	....	.....	.....	—	—	—	.....	..	..	..	..	..	..	.....	—	±	+	+
11	21	+	30,000	Before treatment	98.2	.....	.....	+	—	..	6,000	62	3	..	3	21	11	.....				
				After treatment (15-20 hr.)	99.0	Malaise	.....	—	—	..	14,000	87	2	..	1	6	4	.....				
				After treatment (2 wk.)	....	.....	.....	—	—	—	.....	..	..	..	..	..	..	.....	—	—	—	—
12	26	+	30,000	Before treatment	98.6	.....	.....	—	—	..	8,000	51	..	..	3	30	16	.....				
				After treatment (15-20 hr.)	99.4	.....	.....	—	—	..	17,200	70	2	..	2	18	8	.....				
				After treatment (2 wk.)	....	.....	.....	—	—	—	.....	..	..	..	..	..	..	.....	—	—	—	—
13	29	+	37,000	Before treatment	99.0	.....	.....	—	—	..	6,400	72	..	..	1	22	5	.....				
				After treatment (15-20 hr.)	98.4	Slight headache	.....	—	—	..	12,200	73	1	..	..	18	8	.....				
				After treatment (2 wk.)	....	.....	.....	Trace	—	Pus	.....	..	..	..	..	..	..	.....	—	—	—	—
14	27	+	37,000	Before treatment	98.6	.....	.....	—	—	..	9,600	74	..	..	..	14	12	.....				
				After treatment (15-20 hr.)	98.8	Malaise	Moderate	—	Trace	..	19,600	93	..	..	..	6	1	.....				
				After treatment (2 wk.)	....	.....	.....	—	Trace	—	.....	..	..	..	..	..	..	.....	±	±	+	+
15	23	+	41,000	Before treatment	98.2	.....	.....	—	—	..	7,900	62	1	..	2	32	3	39.47				
				After treatment (15-20 hr.)	99.6	Headache	?	—	—	..	12,800	63	2	..	..	30	5	41.66				
				After treatment (2 wk.)	....	.....	.....	—	—	—	.....	..	..	..	..	..	..	.....	—	—	—	—
16	21	+	41,000	Before treatment	98.8	.....	.....	—	—	..	8,700	49	..	..	..	40	11	30.93				
				After treatment (15-20 hr.)	100.0	.....	Slight	—	—	..	10,400	71	1	..	2	24	2	29.41				
				After treatment (2 wk.)	....	.....	.....	—	—	—	.....	..	..	..	..	..	..	.....	—	—	±	±

CLINICAL PATHOLOGIC REACTIONS FOLLOWING INJECTIONS OF TOXIN

The group of persons given from 20,000 to 41,000 skin test doses of toxin, as shown in table 1, had been given 500 and 1,500 skin test doses as the first and second immunizing injections. A one week interval elapsed between the first and second injections, and a three weeks interval between the second and third. The third dose of from 20,000 to 41,000 skin test doses was instituted following a preliminary series of injections in which the dosage had been increased up to 20,000

3. The toxin for immunization used in these series of experiments was furnished through the courtesy of Drs. George F. and Gladys H. Dick.

skin test doses without any injurious effects. It is to be noted from the clinical and laboratory findings that even with doses up to 41,000, no serious resulting pathologic condition developed. It was felt that the maximum dosage was being approached, particularly on account of the definite leukocytosis that developed following the larger injections.

TABLE 2.—*Summary of Dick Tests on Ninety-Seven Persons Following Three Immunizing Injections of Varying Dosage*

Number Skin Test Doses Third Immunizing Injection	Total Number of Persons Tested	Dick Test: Negative to 1 Skin Test Dose		Negative to 2 Skin Test Dose		Negative to 5 Skin Test Dose		Negative to 10 Skin Test Dose	
		No.	%	No.	%	No.	%	No.	%
40,000	3								
30,000	21	25	100	23	92	21	84	16	64
25,000	1								
20,000	28	24	86	21	75	14	50	12	46
10,000	44	36	81	32	72	19	43	18	40

DEGREE OF IMMUNITY FOLLOWING THREE INJECTIONS OF SCARLET FEVER TOXIN

A detailed study was made of ninety-seven susceptible persons in whom the dosage as well as the time interval was varied between injections. The most striking feature noted was the decrease in the frequency and the severity of general reactions including rashes, when the time interval between injections was extended to two or three weeks instead of the customary one week period.

From the results obtained, 5,000 skin test doses for the second injection and 30,000 for the third injection appear to be the optimal dosage. Table 2 gives a summary of the immunity developed, as shown by the Dick test, in a group of persons in whom the third dose was varied from 10,000 to 41,000 skin test doses. This group had been given 500 skin test doses on first injection and from 2,500 to 5,000 on second injection. Relatively little difference is to be noted in the apparent immunity developed when 10,000 and 20,000 skin test doses are used; however, with doses over 20,000 there is a marked increase in the percentage of negative Dick reactions.

Table 3 shows in detail the clinical reactions as well as the results of the intradermal test in a group of twenty-four persons who had received 500, 5,000 and 30,000 skin test doses, respectively, with a two weeks interval between injections. It is to be noted that general reactions were mild, and in only one instance in this group was a rash noted. Local reactions were recorded in centimeters, according to the area of redness around the point of injection. The results of this series of injections on the basis of the final Dick tests agree very closely with the results obtained previously and summarized in table 2.

SUMMARY

In a group of susceptible persons just as great or greater immunity was produced with three as with five injections of scarlet fever toxin.[1] The dosage suggested by the findings is 500, 5,000 and 30,000 skin test doses, respectively, with an interval of two weeks between injections.[4] (This method of immunization is now in routine use in Michigan state institutions.)

The time interval of two weeks is considered important, as there seems to be less systemic reaction and greater immunity produced than with the usual one week interval.

Clinical and laboratory findings showed no injurious effects on the subject following the relatively large dose of toxin used in the third injection.

TABLE 3.—*Relative Degree of Immunity Following Three Injections of 500, 5,000, and 30,000 Skin Test Doses, Respectively, of Scarlet Fever Toxin*

No.	Age	Initial Dick Test	Initial Immunizing Injection, No. Skin Test Doses	Second Immunizing Injection Two Weeks Following First: No. Test Doses	Reaction: General	Local	Rash	Third Immunizing Injection Two Weeks Following Second: No. Skin Test Doses	Reaction: General	Local	Rash	Dick Test Two Weeks After Third Injection: 1 Skin Test Dose	2 Skin Test Doses	5 Skin Test Doses	10 Skin Test Doses	Control
1	19	+	500	5,000	Slight headache	.....	.....	30,000	.....	.....	..	−	−	−	−	−
2	24	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	−	±	−
3	24	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	−	−	−
4	18	+	500	5,000	.....	.....	.....	30,000	.....	20 × 30 mm.	..	−	−	−	+	−
5	22	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	±	+	−
6	18	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	±	+	−
7	26	+	500	5,000	Slight headache	20 × 20 mm.	.....	30,000	Malaise	30 × 50 mm.	..	−	−	−	−	−
8	22	+	500	5,000	.....	.....	.....	30,000	Malaise	.....	..	−	−	−	+	−
9	35	+	500	5,000	.....	20 × 30 mm.	.....	30,000	Headache	10 × 20 mm.	..	−	−	−	−	−
10	20	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	−	−	−
11	20	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	±	+	±
12	52	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	±	±	±	+	±
13	35	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	−	−	−
14	20	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	−	−	−
15	30	+	500	5,000	.....	10 × 20 mm.	.....	30,000	.....	.....	..	−	−	+	+	−
16	25	++	500	5,000	.....	20 × 30 mm.	Slight	30,000	.....	10 × 10 mm.	..	−	±	+	+	−
17	37	+	500	5,000	.....	10 × 20 mm.	.....	30,000	Headache	.....	..	−	−	+	+	−
18	19	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	±	+	−
19	19	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	−	−	−
20	17	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	±	+	−
21	17	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	−	−	−
22	20	++	500	5,000	.....	20 × 30 mm.	.....	30,000	.....	.....	..	−	−	−	−	−
23	21	+	500	5,000	.....	30 × 50 mm.	.....	30,000	.....	.....	..	−	−	−	−	−
24	20	+	500	5,000	.....	.....	.....	30,000	.....	.....	..	−	−	−	−	−

This investigation is being continued on a larger scale. Considerable data are already at hand which are not available for publication.

4. We have watched carefully for anaphylaxis when injections have been separated by two week intervals. Physicians in state institutions have reported only one case. A child, aged 10 years, showed marked urticaria, shortness of breath, prostration, and a temperature of 102 degrees. The symptoms all subsided in a few hours.

China's Two Systems.—China, which is one of the oldest civilized states of which we have any knowledge, possessed two systems of exercises, one which served as a training for war, and one for use in healing disease—in fact, a kind of medical gymnastics. In the oldest histories of the Japanese, Jews, Indians and Persians, physical exercises are also mentioned, and from Egypt we even have pictures showing the kind of exercises used there in the very early days.—Knudsen: A Textbook of Gymnastics, p. 1.

TREATMENT OF INFANTILE TETANY WITH A PARATHYROID EXTRACT

REPORT OF FOUR CASES *

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In January, 1925, Collip and Leitch [1] reported marked clinical improvement in a case of infantile tetany treated by the administration of an extract of parathyroid glands. The method of preparation and the properties of this extract were later more fully described by Collip and his associates.[2] Hjort, Robison and Tendick,[3] working independently, confirmed the efficacy of the extraction method and duplicated many of the animal experiments.

Since the time when a preparation of this parathyroid hormone became available for experimental study, only four cases of infantile tetany have been seen in the clinic. The data from this small number of cases are insufficient to justify any general conclusions. The primary purpose in presenting the figures is to make them available to other clinics at the beginning of the season when infantile tetany increases in frequency, thus eliminating for them some of the preliminary work on dosage.

METHODS AND MATERIAL

The plan of study was to determine the dosage of parathyroid extract effective for the alleviation and cure of infantile tetany.

The parathyroid extract used was parathyroid extract Collip,[4] the potency of which was indicated in units defined by Collip [5] as "one one-hundredth of the amount of extract which will produce an average increase of 5 mg. in the blood serum calcium of normal dogs of approximately 20 Kg. weight over a period of fifteen hours." The hormone was always given subcutaneously.

The progress of the cases was followed clinically and by the estimation of the serum calcium concentration. There is so much variation in the accuracy with which different observers can elicit signs of mechanical and electrical hyperirritability that the greater reliance was placed on the laboratory measure of improvement.

The blood samples were secured after a minimum fast of four hours. The method used to estimate calcium in the serum was essentially that of Kramer and Tisdall.[6] Definite time intervals in each step were adhered to, thus assuring greater uniformity in the series of determinations. The serum inorganic phosphorus was analyzed by the method of Tisdall,[7] by means of which average normal figures of nearly 6 mg. per hundred cubic centimeters are secured.

The diet in three cases consisted of dilutions of whole milk. One patient (F. R.) still received breast feedings.

REPORT OF CASES

CASE 1.—A. P., a negro boy, aged 8 months, weighing 19 pounds (8.6 Kg.), was admitted to the ward, March 25, 1925, for treatment of a facial eczema. Ten days later, he exhibited an inspiratory crow and had a positive Chvostek's sign. The clinical diagnosis of infantile tetany was confirmed, April 6, when the serum calcium concentration was found to be only 6.7 mg. per hundred cubic centimeters.

CASE 2.—F. R., a white boy, aged 6 months, weighing 17½ pounds (8 Kg.), was brought to the hospital, May 2, 1925, for the treatment of generalized convulsions, with all the usual clinical signs of tetany lacking. No more convulsions were observed after this time. Four days later, he showed positive physical signs of tetany and, May 7, the serum calcium concentration was 7.1 mg. per hundred cubic centimeters.

CASE 3.—M. B., an undernourished white boy, aged 8 months, weighed only 11½ pounds (5.3 Kg.) when he was sent to the hospital, Aug. 6, 1925, for treatment of a moderately severe infection of the upper respiratory tract. Two weeks later, August 19, he had a mild convulsion, followed the next day by an inspiratory crow and a day later by a positive Chvostek's sign. August 22, the serum calcium was 7.5 mg. per hundred cubic centimeters.

CASE 4.—J. B., a white boy, aged 4 months, weighing 10½ pounds (4.8 Kg.), was admitted to the hospital, Oct. 24, 1925, for regulation of diet. During the next few days he had several attacks of noisy inspiration accompanied by cyanosis. October 29, the serum calcium was 5.6 mg. per hundred cubic centimeters, but in spite of this low concentration, none of the signs of mechanical hyperirritability were elicited.

RESULTS

When treatment was begun in case 1 no data were available to assist in selecting the proper dose for infants. The danger from hypercalcemia in dogs was known and impelled the selection of an initial dosage which was insufficient to raise the serum calcium. The subsequent dosages were more successfully chosen and uniformly induced clinical improvement and increased the concentration of serum calcium. The mechanical and electrical hyperirritability had usually entirely disappeared by the time the calcium in the serum had reached 9 or 10 mg. per hundred cubic centimeters. When an inspiratory crow was present, it disappeared more slowly.

In three cases, recovery was complete. In cases 2 and 3, relief occurred in two days and the patients have remained free from symptoms of infantile tetany for seven and three and one half months, respectively. Patient 4 was also relieved in two days, but he relapsed into a condition of tetany when the parathyroid extract was discontinued at the end of this time.

Patient 1 had a severe complicating bronchopneumonia and died sixteen days after the cessation of treatment with parathyroid extract.

COMMENT

It seems quite evident that the parathyroid extract was responsible for the favorable results in cases 1 and 2 over the periods shown in the table, because no other treatment was given during this time. The experi-

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4. Parathyroid extract (para-thor-mone-Lilly), described in New and Nonofficial Remedies (J. A. M. A. **85**: 1559 [Nov. 14] 1925).

5. Collip and Clark (footnote 2).

6. Kramer, Benjamin; and Tisdall, F. F.: A Simple Technic for the Determination of Calcium and Magnesium in Small Amounts of Serum, J. Biol. Chem. **47**: 475 (Aug.) 1921.

7. Tisdall, F. F.: A Rapid Colorimetric Method for the Quantitative Determination of the Inorganic Phosphorus in Small Amounts of Serum, J. Biol. Chem. **50**: 329 (Feb.) 1922.

mental value of case 3 was much decreased by the inadvertent exposure to ultraviolet irradiation about thirty-two hours before the third serum calcium determination. Falkenheim and György [8] have said that the calcium in the blood is often temporarily decreased for many hours after the first ultraviolet exposure. It is felt that this treatment was not primarily responsible for the favorable outcome, because its repetition on the following day did not sustain the high calcium level in the face of a diminishing dose of parathyroid extract. In case 4 the administration of cod liver oil and calcium chloride for the period of a week may have influenced the results of the second and third courses of parathyroid extract, but no favorable effect was evident at the end of the seven days, as will be seen in the accompanying table.

*Treatment of Infantile Tetany with Parathyroid Extract**

Case	Date (1925)	Hour	Parathyroid extract Units Subcutaneously	Mg. in 100 Cc. Calcium	Mg. in 100 Cc. Phosphorus	Comment
1 (8.6 Kg.)	4/ 6	9 a. m.	—	6.7	—	Crow +, Chv. +
		3 p. m.	5	—	—	Crow 0, Chv. +
		6 p. m.	5	—	—	—
		9 p. m.	10	—	—	—
		12 midnight	10	—	—	—
	4/ 7	3 a. m.	10	—	—	Crow 0, Chv. +
		10 a. m.	—	7.5	—	—
		4 p. m.	20	—	—	—
		7 p. m.	20	—	—	—
		10 p. m.	20	—	—	—
		12 midnight	20	—	—	Crow 0, Chv. +
	4/ 8	3 a. m.	20	—	—	—
		10 a. m.	20	9.9	5.4	Crow 0, Chv. 0
	4/ 9	2 p. m.	20	—	—	—
		9 p. m.	20	—	—	—
	4/10	11 a. m.	20	9.5	—	Bronchopneumonia; intervening antitetany treatment with other agents
	4/29	—	—	—	—	Died
2 (8.0 Kg.)	5/ 7	6 p. m.	25	7.1	5.7	Crow ++, Chv. 0
	5/ 8	2 a. m.	25	—	—	—
		11 a. m.	25	—	—	—
		6 p. m.	25	—	—	—
	5/ 9	2 a. m.	25	—	—	—
		9 a. m.	—	10.1	4.6	Crow +, Chv. 0
		6 p. m.	10	—	—	—
	5/10	9 p. m.	10	—	—	—
	5/11	10 a. m.	—	9.5	4.1	Crow 0, Chv. 0
		7 p. m.	20	—	—	—
	5/13	8 p. m.	20	—	—	—
	5/14	7 p. m.	20	—	—	—
	5/15	8 a. m.	—	10.6	4.5	—
		7 p. m.	20	—	—	—
	5/16	—	—	—	—	Discharged
	5/23	—	—	—	—	No symptoms or signs of tetany
3 (5.3 Kg.)	8/19	10 a. m.	—	—	—	Muscle twitchings
	8/20	—	—	—	—	Crow +
	8/21	—	—	—	—	Crow +, Chv. +
	8/22	10 a. m.	—	7.5	4.1	Crow +, Chv. +
	8/24	2 p. m.	—	7.3	5.1	Crow +, Chv. +
		3 p. m.	30	—	—	—
		12 midnight	30	—	—	—
	8/25	9 a. m.	—	—	—	Ultraviolet irradiation 4 minutes at 50 cm.
		12 noon	30	—	—	Crow ±, Chv. ±
	8/26	10 a. m.	30	—	—	Crow 0, Chv. 0
		5 p. m.	—	11.0	—	—
		12 midnight	30	—	—	—
	8/27	10 a. m.	—	9.1	3.4	—
		2 p. m.	—	—	—	Ultraviolet irradiation 4 minutes at 50 cm.
		4 p. m.	30	—	—	Crow 0, Chv. 0
	8/28	9 a. m.	—	8.9	—	—
4 (4.8 Kg.)	10/29	12 noon	—	5.6	8.6	Crow ++, Chv. 0, per. 0
	10/31	10 a. m.	25	7.2	9.2	Crow ++, Chv. 0, per 0
		4 p. m.	25	—	—	—
		10 p. m.	25	—	—	—
	11/ 1	4 a. m.	25	—	—	—
		2 p. m.	—	9.6	7.9	Crow +, Chv. 0, per. 0
	11/ 2	—	—	—	—	No treatment
	11/ 3	—	—	—	—	No treatment
	11/ 4	10 a. m.	—	6.6	—	—
		6 p. m.	25	—	—	—
		12 midnight	25	—	—	—
	11/6 to 11/11	—	—	—	—	Cod liver oil (16 cc.) Calcium chloride (11.2 gm.)
	11/10	5 p. m.	—	6.6	7.6	Crow ±, Chv. ±
	11/11	6 p. m.	20	—	—	—
		12 midnight	20	—	—	—
	11/12	6 a. m.	20	—	—	—
		6 p. m.	20	—	—	—
	11/13	6 a. m.	20	—	—	—
		6 p. m.	20	—	—	—
	11/14 to 11/17	9 a. m.	—	8.9	7.1	Crow ±, Chv. 0, no treatment
	11/18	10 a. m.	—	8.4	7.1	—
		2 p. m.	30	—	—	—
		8 p. m.	30	—	—	—
	11/19	2 a. m.	30	—	—	—
		8 a. m.	30	—	—	Crow 0
		6 p. m.	—	12.9	—	—
	11/20 to 11/27	9 a. m.	—	9.3	7.4	No treatment
	12/ 1	7 p. m.	—	—	—	Ultraviolet irradiation 2 minutes at 50 cm.
	12/2 to 12/11	9 a. m.	—	10.8	7.7	Ultraviolet irradiations Discharged

* In the table, Chv., Chvostek (facial phenomenon); per., peroneal reflex.

The size of the doses used, the intervals between injections, the varying severity of the disease and the differences in weight and state of nutrition all introduced so many variables that no definite standard of effective dosage for the parathyroid extract is computable from this small series of cases. The response of the infants to this hormone showed the same individual variation that has been noted as occurring in dogs.[9] This may be seen in the following summary, intended to show the unit-time dose necessary to cause a rise of 1 mg. of serum calcium:

Patient 1 required approximately 5.5 units per kilogram in nineteen hours at three hour intervals.

Patient 2 required approximately 5.2 units per kilogram in thirty-nine hours at eight hour intervals.

Patient 3 required 6 units per kilogram at intervals of from nine to twenty-two hours over a total period of forty-eight hours.

Patient 4 required in three successive series of parathyroid extract: (1) 8.7 units per kilogram in twenty-eight hours at six hour intervals; (2) 10.8 units per kilogram in sixty-three hours at twelve hour intervals, and (3) 5.6 units per kilogram in twenty-eight hours at six hour intervals.[10]

It is fairly evident that the greatest unit effectiveness is secured from this hormone when the total dose is given at fairly frequent intervals (from four to six hours) over a short period of time (from eighteen to thirty-six hours).

On the basis of the foregoing figures, it seems safe to recommend an initial dose of about 5 units per kilogram of body weight for each milligram of calcium rise desired, to be given subcutaneously at four to six hour intervals in from twenty-four to thirty-six hours. This is an arbitrary recommendation, and the effect should be observed by means of serum calcium determinations.

The fraction of the original total dose that is necessary in each twenty-four hours to sustain this normal calcium level cannot be predicted from the foregoing data. It apparently varies from about one-eighth to one-fifth, and naturally decreases as the patient improves.

The effect of the abrupt omission of the hormone treatment was apparently dependent on the stage of the disease. Omission early in the course (case 4) allowed a relapse, but this was not so evident on withdrawal of

8. Falkenheim, C., and György, P.: Zur Besthrahlungstherapie der Tetanie, Jahrb. f. Kinderh. **107**: 201-210 (Nov.) 1924.

9. Collip and others (footnote 2). Hjort, Robison and Tendick (footnote 3).

10. Since the submission of these data, we have had the opportunity to administer parathyroid extract as the initial treatment in two more cases of manifest infantile tetany: Case 5, A. T., aged 4 months (5 Kg.), required 4 units of extract per kilogram to cause each 1 mg. rise in serum calcium, when given in thirty-seven hours at six hour intervals in conjunction with a total dose of 2 Gm. of calcium chloride by mouth. Case 6, B. M., aged 3 years (12.7 Kg.), entered the hospital during his third attack of infantile tetany. He required 9 units of parathyroid extract per kilogram to cause each 1 mg. rise in serum calcium, when given at four to six hour intervals during a period of forty-eight hours.

the extract after improvement had been maintained a few days.

A significant degree of hypercalcemia was not produced in any case.

SUMMARY

The subcutaneous administration of proper doses of parathyroid extract-Collip in four cases of infantile tetany caused rapid improvement in symptoms and signs and a prompt return to normal of the serum calcium concentration in from twenty-four to forty-eight hours. The continued daily administration of suitable fractions of this initial dose maintained this clinical and laboratory improvement. It is felt that a safe tentative dose is about five units of parathyroid extract per kilogram of body weight for each desired rise of 1 mg. of serum calcium, the total amount to be distributed over a period of from twenty-four to thirty-six hours at four to six hour intervals. The individual reaction is so variable that the effect should be estimated by means of repeated serum calcium determinations.

161 West Sixty-First Street.

Clinical Notes, Suggestions, and New Instruments

OXYGEN TREATMENT OF MALIGNANT EDEMA

R. P. ROANTREE, M.D., ELKO, NEV.

In reviewing the literature on this subject, I can find no mention of a patient treated in this manner or a description of a simple apparatus that may be used in injecting the oxygen.

REPORT OF CASE

P. J., a muscular man, aged 26, entered Elko General Hospital, Sept, 6, 1924, complaining of a revolver wound of the left elbow. His past and family history are irrelevant. The injury occurred between 9 and 10 p. m., Sept. 3. The arm was cleansed and the wound irrigated with compound solution of cresol. The bullet had been removed from beneath the skin at about the middle of the mesial side of the arm by a layman. The wound was irrigated with compound solution of cresol twice on the 4th and three times, September 5.

The pulse rate was 85, the temperature, 99.6 F., and respirations, 22. There was a bullet wound in the palmar surface of the left forearm, at the junction of the upper and middle thirds. The bullet had been removed from the posterior surface of the left arm at the junction of the lower and middle thirds. The arm from well above and below the wounds was greatly swollen and was of a peculiar bronze color. There was crepitation about the wound both of entry and of exit, and this extended well up toward the left axilla. Roentgenograms revealed no bony injury. The films disclosed areas of decreased density beneath the wound both of entry and of exit, which were diagnosed as gas within the subcutaneous tissue. They appeared to be about 1 inch (2.5 cm.) below the skin surface. The gas beneath the wound in the forearm was small in amount and well localized. That beneath the wound in the arm was greater in amount and had dissected proximally to the axillary fold.

The urine was normal. A smear from the wound revealed a gram-negative bacillus. Unfortunately, no cultures were made.

Two consultants confirmed the diagnosis of gas bacillus infection. A disarticulation at the left shoulder was advised. This was carried out at once. No gas was encountered during the disarticulation. All subcutaneous soft tissue was removed as far proximally as possible.

September 7, the temperature was 100, the pulse 120, and respirations, 24. Careful palpation about the wound revealed no crepitus.

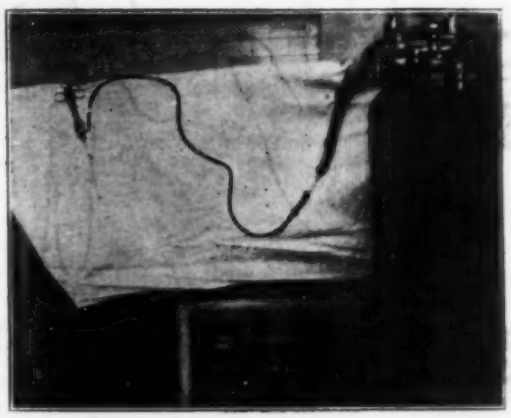
September 8, the temperature was 100, the pulse 120, and respirations, 20. There was some crepitation felt extending downward and anterior to the lower angle of the wound. Oxygen was injected subcutaneously at this time.

September 9, the oxygen injection was repeated.

September 13, there was a large discharge of bloody serum. The wound margins separated slightly because of tension caused by the oxygen. Crepitation persisted until September 29. Aside from the foregoing irregularities, the patient made an uneventful recovery and was discharged, September 29.

METHOD OF INJECTION

The usual large tubing on a Heidebrink gas-oxygen anesthesia machine was reduced by the use of rubber tubing to fit the one way valve on a Dunn's local anesthesia syringe, as shown in the illustration. The skin was prepared with iodine and alcohol for a liberal distance about the crepitant area and wound. The gas bag was filled with oxygen. The needle was introduced down to the ribs and intercostal muscles at a distance of about 6 inches (15 cm.) from the area of creptitation, and each layer injected as the needle was withdrawn. This was repeated until the crepitant area had been completely circumscribed. Following this, the interior of the circle was injected until the skin was tightly distended.



Heidebrink gas-oxygen anesthesia machine with Dunn's local anesthesia syringe attached.

SUMMARY

Results obtained in a single case are not conclusive. However, this experience leads one to believe that oxygen may be injected subcutaneously in large amounts without serious disturbance. This case is reported with the hope that it will stimulate the use of this method to determine its efficacy. The procedure has the following advantages over amputation or free incision: It saves the extremities; it may be used on all areas of the body; there are no resulting scars and less possibility of secondary infection; it may be carried out without anesthesia or the shock and pain accompanying several incisions.

SEVERE LACERATION OF HAND WITH TRAUMATIC AMPUTATION OF TWO FINGERS *

MARTIN J. LOEB, M.D., NEW YORK

History.—A boy, aged 8 years, was run over by a truck, June 29, 1923. Shortly after, on admission to the hospital, he was seen by two able surgeons, who happened to be in the institution, and who advised an amputation of the hand above the wrist. I mention this fact, not in disparagement of these men, but merely to give an idea of the severity of the trauma. I did not see the hand until the boy was under narcosis and ready for operation, two hours after the injury. My decision as to procedure was therefore immediately made.

* From the service of Dr. Martin Rehling at the Bronx Hospital.

* Read before the Bronx County Medical Society, Jan. 23, 1924, at the New York University Clinical Society, March 7, 1924, and at the Eastern Medical Society, May 9, 1924.

Preoperative Findings.—The metacarpal bones of the ring and small finger of the right hand were broken, together with their attachments of muscles and nerves. The skin of the palm of the hand, together with the underlying palmar fascia, was torn off the hand, and these and the two traumatically amputated fingers were hanging from the hand, attached only by the web of skin between the ring and middle finger. The small adductors of the thumb were torn across, as were two tendons of the flexor sublimis of the middle and index finger (fig. 1).

Procedure.—The hand was thoroughly scrubbed with soap and water, followed by ether. Tincture of iodine was generously applied several times and each time washed off with alcohol. The adductor brevis pollicis was sutured, as were the sublimis tendons of the remaining fingers. The ring finger was denuded of its skin, and this piece of skin, which was attached by the web to the dorsal surface of the hand, was placed across the lower part of the palm (fig. 2). As this was done, the mass held by this bridge of skin fell off (fig. 1). The rest of the wound was left to granulate.

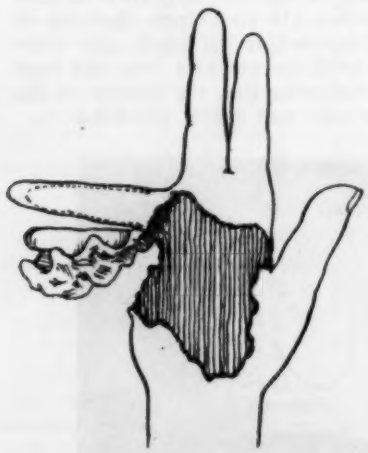


Fig. 1.—Traumatic amputation of the ring and small finger of the right hand through the metacarpal bones: The skin of the palm as well as the underlying palmar fascia was torn off; some of the tendons were severed.

Fig. 2.—Skin of ring finger placed across palm; tendons sutured.

July 20, the second operation was performed in the following manner: A pattern was made of the denuded area of the palm of the hand and this pattern marked out on the skin of the right buttock. The skin was then cut above and below about 5 inches in width and 3½ inches in length. The hand was then placed on the back, palm facing backward, and brought through this pocket of skin. The button-hole was made in the skin through which the thumb was taken through so as to have the denuded area between the thumb and the index finger in contact with the skin of the buttock. The patient was then placed in a plaster-of-paris jacket to keep his hand immovable in that position. The skin was attached at its edges to the palm of the hand with interrupted silkworm-gut sutures. A window was cut through the plaster of paris so that the hand could be dressed, if necessary (fig. 3).

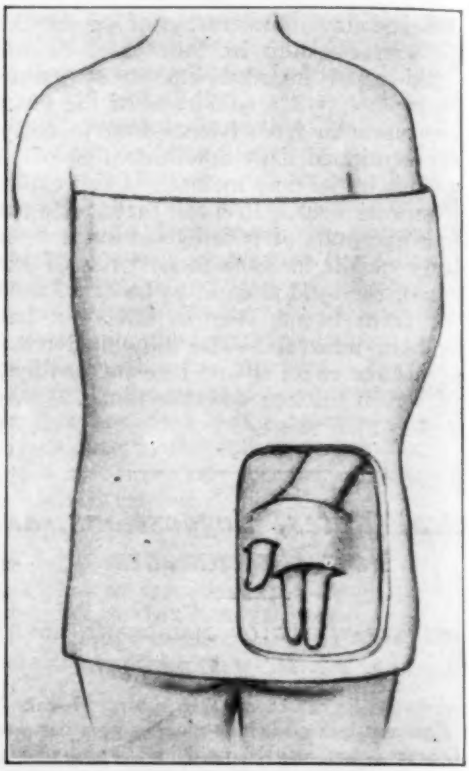


Fig. 3.—Skin of buttock undermined; denuded hand placed underneath; special opening made for thumb to cover denuded web between thumb and index finger; plaster jacket applied.

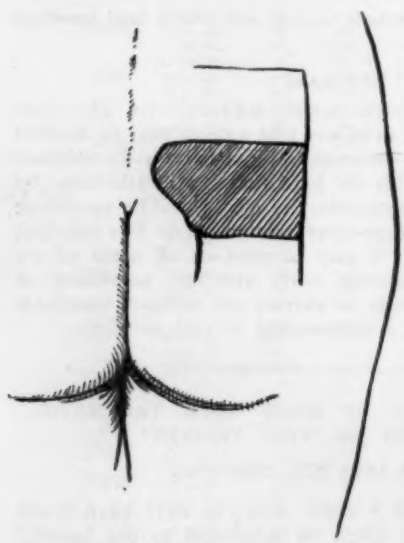


Fig. 4.—Denuded area from which graft was made; incisions.

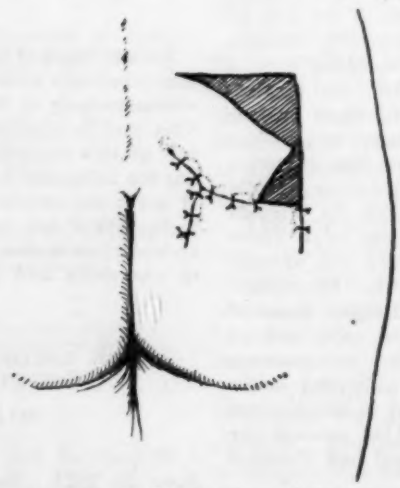


Fig. 5.—Bringing down of flap.

Fig. 6.—Undermined skin from abdomen and side brought backward to meet flap, defects of buttock completely covered.

July 31, the wound was exposed through the plaster-of-paris window and the right edge of the skin lying over the palm was severed under local anesthesia (fig. 3).

August 10, the rest of the flap attached to the inner side of the body was severed, the hand was removed from its plaster encasement, and the skin was cut farther away from the edges of the wound to allow for contraction. The hand was bandaged and the patient turned on his abdomen. The area found to be denuded on the back was 4 by 5 inches, or about 20 square inches of surface. The flap was cut upward from the outer edge of the wound for about 5 inches. Then this incision was carried backward toward the spinal column, giving a quadrilateral flap of skin with an attachment toward the spinal column. The skin of the abdomen was undermined, as well as the skin of the buttock. This flap was brought downward and attached partially to the skin of the buttock while the skin of the abdomen was brought backward as far as possible to cover up the defect that was made by the transplanting of the quadrilateral flap (figs. 3, 4, 5 and 6).

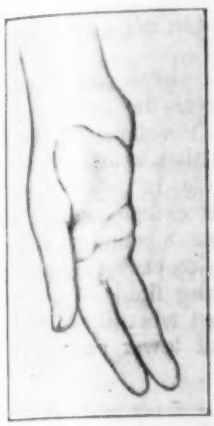


Fig. 7.—Hand as it appears now.

Result.—Figure 7 shows the result of the graft. I might add that the patient has excellent function, the palm being wider above because I did not remove the upper fragments of the metacarpal bones, thus adding greater utility. The adduction of the thumb is perfect, and since I took very little adipose tissue with the skin, the cosmetic result is as good as the function.

1475 Grand Concourse, Bronx.

MODIFIED HIP REST

DAVID R. TELSON, M.D., BROOKLYN

The illustration shows a hip rest which can be applied with equal ease to the operating table, the examination table or any table found in the patient's home. The throat of the instrument is made deep enough to allow its application within the baseboard of the dining table. Therefore, the necessity of clamping the rest on the very edge of the table, outside the baseboard, is done away with. The clamp is detachable and, if need be, the rest can be laid flat on a board in bed. The pelvic plates are unique in being shaped to fit the sacrum, thus obviating the usual gap between the spica and the patient, posteriorly.

Hip rest that can be used for bed or table.

734 Ocean Avenue.

Special Article

THE TECHNIC OF MEDICATION

A SERIES OF ARTICLES ON THE METHODS OF PRESCRIBING AND PREPARING, THE INDICATIONS FOR, AND THE USES OF VARIOUS MEDICAMENTS *

BERNARD FANTUS, M.D.
Associate Clinical Professor of Medicine, Rush Medical College
CHICAGO

(Continued from page 1285)

DOMESTIC MEASURES OF DOSAGE

On account of the ignorance of the average layman in regard to weights and measures, it is customary to direct patients to employ, for the administration of medicines, domestic measures with which they are familiar, such as:

1 drop (abbreviation, gtt.; Latin, gutta)	About	0.05 cc.[46]
1 teaspoonful	About	5.00 cc.
1 dessertspoonful	About	10.00 cc.
1 tablespoonful	About	15.00 cc.
1 wineglassful	About	50.00 cc.
1 teacupful	About	100.00 cc.
1 tumblerful	About	250.00 cc.
1 knifepointful	About	1 to 2 Gm.

Because of greater convenience in calculation of metric quantities, it is admissible to consider the teaspoonful 5 cc. and the tablespoonful 15 cc. In view of the variability of all these measures, this is quite as correct as figuring on a 4 cc. teaspoonful, an 8 cc. dessertspoonful and a 16 cc. tablespoonful, or a wineglassful at 60 cc. and a cupful at 120 cc., as is done when one uses the old system of weights and measures. In view of this inexactness of the domestic measures, it would be desirable to have them replaced by graduated medicine glasses.

The size of the dose of the finished medicine, whether teaspoonful, dessertspoonful or tablespoonful, depends mainly on the solubility of the medicament. After this has been determined, the number of doses should be decided on, keeping in mind, first, the rule to prescribe generally enough to last from one visit to the next; and, secondly, to have the prescribed medicine just fill a bottle. It looks better. Hence we must know the various sizes of medicine bottles carried in stock by our druggists; they range as follows: 4, 8 and 16 cc. (1, 2 and 4 fluidrachms) and 30, 60, 90, 120, 180, 240, 360, 500 and 1,000 cc. (1, 2, 3, 4, 6, 8, 12, 16 and 32 fluidounces). It is to be regretted that the druggists of this country do not yet carry a stock of metric prescription bottles. However, we can hardly subject the average druggist to the hardship of keeping two complete assortments of bottles on hand. How soon pharmacists will change their stock of bottles, so as to carry only metric bottles, depends entirely on how soon physicians generally discard the old system.

As, in prescribing solutions, it would be rather difficult to estimate just how much of the vehicle is needed to fill a bottle of a certain size, for the solute replaces some of the solvent, it is customary simply to direct the pharmacist to use a sufficient quantity of the vehicle to make up the total volume desired; this is simply expressed by writing: "to make," which is then followed by the figure expressing the total volume. If,

* This is the eighteenth of a series of articles on "The Technic of Medication." When completed the articles will be assembled in book form.

46. Only approximately correct in the case of aqueous fluids (see discussion on "Drop Dosage").

for instance, one wishes to prescribe fifteen doses of 1 Gm. of potassium bromide with peppermint water as the vehicle, and decides that a teaspoonful is to be the dose of the finished product, one writes:

℞ Potassium bromide..... 15 Gm.
Peppermint water.....to make 60 cc.
Label: Teaspoonful in water every two hours.

Had the phrase "to make" been omitted in this prescription, the volume of the finished product would exceed 60 cc. somewhat, as the dissolved salt occupies some space; and consequently each teaspoonful would contain a little less than the desired amount.

If the rule followed is to have the prescribed mixture aggregate just a bottleful, the number of doses prescribed is generally not convenient for figuring in the metric system. One way of overcoming this is to disregard the rule as to the prescribing of a bottleful, and to order 50, 100, etc., cc. mixtures, letting the druggist dispense them as best he can. Thus, for a time, patients would obtain only partially filled medicine bottles; and after a while the druggists would find it to their advantage to carry in stock metric prescription bottles.

For those who have learned the doses of medicines in the old system, and who desire to write metric prescriptions—as all should—the application of the assumption that 1 Gm. or cc. = gr. xv or M xv [47] permits the following convenient rule to be formulated: Substituting for the number of grains or minims of the dose the same number of grams or cubic centimeters will give fifteen doses in metric terms. By this rule one is enabled to prescribe, without any difficulty, an ordinary bottleful, as 60 cc. (fifteen doses of 60 minims, or a teaspoonful) or 240 cc. (fifteen doses of 240 minims, or a tablespoonful) will fill a 2 or an 8 ounce bottle, respectively.

COMPUTATION OF "PER CENT" SOLUTIONS

It is easy to compute the strength of "per cent" solutions in the metric system. To prescribe 1:1,000 solutions, one simply uses as many milligrams of the drug as cubic centimeters of solution are desired: for 0.001:1 equals 1:1,000. Hence, to prescribe a 1 ounce bottleful of 1:1,000 solution, one uses 30 mg. (written 0.030 Gm.) of drug to 30 cc. of solvent; for a 4 ounce bottle (120 cc.), one uses 0.120 Gm.

A simple mathematical trick for quick calculation on making higher from lower dilutions is described by Fletcher: [48]

> The average civilized man can count two quite easily; for instance, he knows how to prepare a 40 per cent from one of 80 per cent by taking one part of the latter and making it up to two parts by adding an equal quantity of the diluent. This is the same thing as taking 40 parts and adding sufficient diluent to make 80. What is not generally realized is that all other dilutions can be prepared on the same principle; for example, a 30 per cent solution can be made from one of 50 per cent strength by taking 30 parts of the latter and making it up to 50; or a 40.25 per cent solution can be prepared from one of 79.5 per cent by taking 40.25 cc. of the latter and adding sufficient diluent to make 79.5 cc. That is to say, an x per cent solution can be prepared from a y per cent solution by taking x cc. of the latter and diluting it sufficiently to make y cc.
>
> The preparation of the other fractional dilutions is equally simple. As every one knows, a 1 in 10 solution (written 1/10) can be made from a 1 in 5 (1/5) solution by taking 5 parts of the latter, and diluting it up to 10 parts, but it is not generally known that all dilutions can be prepared in the same way; that, for instance, a 1/97 dilution can be made from a 1/8 dilution by taking 8 parts of the latter and making it up to 97. In short, a $1/x$ solution can be prepared from a $1/y$ solution by taking y cc. of the latter and adding sufficient diluent to produce x cc.

By this method the medical man can not only calculate quickly but do it "in his head."

Blacklock [49] calls attention to Stephens and Christopher's simple formula which shows the amount of diluting fluid necessary to add to 1 volume of fluid of percentage x in order to reduce that volume to the desired percentage y. The formula is $x/y - 1$, in which x represents the original percentage and y the desired percentage. Thus, to dilute a solution from 20 per cent to 5 per cent, one adds to each volume of solution $20/5 - 1 = 3$ of the diluting fluid.

The following formula can be used when it is necessary to prepare specified volumes of lower percentage from higher percentage:

> To prepare a specified volume z of a y per cent solution from an x per cent solution, take of the latter $\frac{z \times y}{x}$ volume and make up to z volume with diluting fluid. Example: To obtain 12 cc. of a 24 per cent solution from an 80 per cent solution, take of the latter $\frac{12 \times 24}{80} = 3.6$ cc. and make up to 12 cc. with diluting fluid.
>
> Fractional Dilution: To prepare a specified volume z of a $1/y$ dilution from a $1/x$ dilution, take of the latter $\frac{z \times x}{y}$ volume and make up to z volume with diluting fluid. Example: To obtain 60 cc. of a 1/100 dilution from a 1/10 dilution, take of the latter $\frac{60 \times 10}{100} = 6$ cc. and make up to 60 cc. with diluting fluid.

DILUTION OF DOSE BEFORE TAKING

Nearly all medicine should be freely diluted before taking: for, properly diluted, it will taste less and it will be better borne by the stomach. In case of medicines of very disagreeable taste, it is better to dilute with only a moderate amount of fluid, so as to lessen the quantity of nasty liquid that must be swallowed. On the other hand, the more irritating the medicine, the more it should be diluted. In the interest of economy, it is well to prescribe a spoonful just large enough to keep the solids in solution, and direct the patient to dilute the medicine just before taking the dose. In many instances, water suffices as the diluent. If one wishes to favor absorption, hot water or carbonated water may be used. To lessen tendency to produce nausea or vomiting, ice cold water, or, better still, ice cold carbonated water may be used. Because of the importance of carbonated water as a diluent for medicines, it is well to be familiar with all the various methods of imparting effervescence to medicines. The simplest of these is the use of carbonated water from siphon bottles (the so-called siphon seltzer). The official solution of magnesium citrate is an example of another way of charging medicament with carbon dioxide. This is a lemonade-like drink containing a little over 5 Gm. of magnesium oxide made effervescing by carbon dioxide under pressure. Of course, of this solution not less than a bottleful (360 cc.) should be prescribed. Effervescing powders prescribed like the seidlitz powders and effervescing salts (previously discussed) are other examples of how the same result may be obtained in a still different manner. Finally,

47. In writing quantities in the old system, we must be very careful to use a distinctive method, because of the great similarity of the signs Gm. and gr. The symbol for grain, written with a small initial letter, should precede the number, which is given in Roman numerals. If there are fractions, these should always be stated as common fractions, never written as decimals even if they might be.

48. Fletcher, William: Lancet **1**: 223 (Jan. 29) 1921.

49. Blacklock, B.: Lancet **1**: 377 (Feb. 19) 1921.

the patient may add lemon juice just before taking his dose of medicament containing bicarbonate.

Lemonade sometimes makes a pleasant diluent for medicine. Effervescing magnesium sulphate (N. F.) is, for instance, best given in an ice cold lemonade. Other diluted fruit juices, such as orangeade and grape juice, may also at times be used to advantage. Soup enables one to give medicines of purely saline taste, such as bromide, even without the patient's knowledge that he is getting medicine, if the medicinal salt is used instead of cooking salt. Sodium iodide may be added to sodium chloride and used in the salt shaker to season one's daily food, as in the treatment and prevention of simple goiter. Coffee and cacao may also be used as a disguising diluent, most especially of medicines of a moderate degree of bitterness, such as senna. Among colloidal diluents, milk is of especial value not only for disguising taste but also for lessening irritation. One must, however, be careful not to prejudice patients, especially little children, against such an important food as milk.

DOSAGE OF DRUGS

Next in importance to the selection of the proper drug, or even quite as important, is the determination of the proper dose. The proper dose is just enough to produce the desired effect in the patient for whom the medicament is intended with a minimum of undesired side-effects. Some remedies act differently in different doses, a small dose sometimes having exactly the opposite effect from that of a large one. The Pharmacopeia and the National Formulary give, in connection with each article that is likely to be used internally, the average dose for adults. These doses must not be regarded obligatory; they are merely intended as a guide to those unfamiliar with the drug or preparation. A physician may give less or more, according to his judgment; for the dose of a remedy must be varied in the same manner that the size of a coat must be varied to fit each person.

The "physiologic" dose is that amount which will produce slight but distinct symptoms in a normal person; in the textbooks it is generally stated as the maximum dose. When a powerful remedy is being given for the first time, it is better to begin with a smaller dose, the initial or minimum dose, unless the urgency of the case demands that a large dose be given. Cases occur in which the "maximum dose" of the textbooks is exceeded with positive benefit to the patient. The only dose that should not or only exceptionally be exceeded, and then with the greatest caution and every possible safeguard, is the minimum lethal dose, the smallest quantity known to have produced death in a human being. A toxic dose is one capable of producing marked derangement of the functions of the body.

The dose given in the textbooks is considered proper for adult males in the prime of life; the medicament, unless otherwise specified, is to be given by the mouth. There are many conditions that necessitate modifications of this dose.

1. *Age and Sex.*—The same amount of drug distributed through the tissues of a very large person must receive a greater dilution and hence have less effect than if distributed through the tissues of a very small one. Thus, the dose is nearly proportional to the weight, although in such calculations the weight of adipose tissue would have to be deducted, for fat is an inert tissue and does not count; similarly, allowance has to be made for dropsies. Women usually require relatively smaller doses than men, not only because they are generally smaller but also because they are more sensitive than men.

There is great difference between the weight of the child and that of the adult. Partly for this reason, and partly because certain tissues of the child differ in their susceptibility to drugs from those of the adult, the necessity arises for a very careful adjustment of the dose in the case of children. We must realize in this connection that there is no universally applicable rule for determining the dosage for children as a certain proportion of the adult's dose; for "the child is not merely a small adult," but has reactions to disease as well as to remedies that differ from those of the adult. This is indeed the justification for the existence of pediatrics as a specialty, and the reason why a pediatrician, knowing just what dose to give to a child irrespective of the dose of the adult, may have much better success than the physician who just goes by rule of thumb. Still, some such rule is necessary to serve the beginner for general guidance. Probably the simplest rule for the prescriber in the metric system is a modification of Cowling's rule, according to which the adult's age is taken as 25, and each year that the child has commenced as an even part of 25. According to this rule, for instance, a child of 4 (having commenced its fifth year) would require five twenty-fifths, or one fifth, of the adult dose. As it is often easier, instead of dividing by 25 to multiply by 4 and divide by 100, we may arrive at a child's dose by multiplying the adult dose by the child's age multiplied by 4, and then to divide by 100, which is done by simply writing the decimal fraction. Thus, if the adult dose of a substance, say sodium bromide, is 1 Gm., its dose for a child of 3, according to this rule, would be $\frac{4 \times 4}{100}$ or 0.16 Gm.

A still simpler way of applying this rule consists of adding to 100 cc. (which contains approximately twenty-five doses) as many adult doses as the child has years in its age plus one. Therefore, to 100 cc. (a 3 ounce bottle) we would add 4 Gm. of sodium bromide for a child 3 years of age.

As Cowling's rule errs somewhat in the direction of generally apportioning rather too small a dose, it will be seen that to apportion dosage for infants under 1 year, we may safely calculate the months as years and divide the result by 10 (instead of 12). Hence, for a child 3 months old, the dose of a substance whose adult dose is 1 Gm. would be one tenth of the dose calculated for a child 3 years old, or 0.016 Gm.

All these arbitrary rules require, however, modification in case of certain drugs. Thus, children are very susceptible to opium, which must be given in doses much smaller than those of the formula; while arsenic, bromide, belladonna and purgatives are usually well borne by children, and relatively large doses must be prescribed. Antitoxin has to be given in almost as large a dose to the child as to an adult, for it is in relatively much greater need of it than the adult, being so much less able to develop its own antitoxin.

As old age approaches, it is advised to reduce the dose somewhat, and to give to patients from 70 to 80 years of age about three fourths of the adult dose; after 85, about one half. There are exceptions to this rule, also; for old persons generally bear opium and stimulants very well, and often need large doses of purgatives.

(To be continued)

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SATURDAY, MAY 1, 1926

SCIENCE IN EVERYDAY MEDICINE

In the introductory chapters of a recent volume on scientific research and human welfare,[1] the writer remarked that nothing is more exasperating than to be compelled to witness a great tragedy which we know could be prevented if we could only do the right thing. Probably physicians in earlier times felt much the same way, he adds, when they saw their patients die by scores during some epidemic with which they were powerless to cope. Until the last half century, all who had to do with disease were so bound by the bonds of ignorance that they were well nigh powerless. For its own progress, one of the foremost ever present needs of medicine is the acquiring of new knowledge. Before rational progress in therapy can come about, the mystery of maladies of unknown pathogenesis must be dispelled. Physicians in the past were able only imperfectly to cope with infection and disease. It was not until trained research workers devoted themselves to a study of the fundamental causes of disease that real significant progress was made; more was then accomplished in fifty years than in all the past history of the world. This salient fact of the importance of the search for truth, the goal of investigation, needs to be reiterated frequently lest the medical investigator be allowed to lapse into indifference owing to the lack of appreciation and support from his so-called practical colleagues.

For this reason, too, it seems worth while to point repeatedly to the varied illustrations of what scientific investigation means for human welfare through medical enlightenment. A recent issue of THE JOURNAL will serve to furnish examples. Thus, Brown[2] of the Mayo Clinic has called attention to the fact that, as the outcome of studies in the domain of gastro-enterology, infestation with *Endameba histolytica* is far more common in the temperate zone than is generally suspected. As the endameba is transmitted by food and water, new problems attend the use of uncooked food and the drinking water supply in certain sections, particularly when one realizes that a single clinic has identified the parasite in 533 cases in five years under conditions in which only a small proportion of all the patients had stool examinations. Brown has formulated the advice that repeated examinations of stools are essential to the diagnosis of all forms of dysentery, and has pointed out requisites for correct differential diagnosis and probabilities of successful treatment. No amount of ordinary "bedside observation" could have established the important facts recorded in Brown's research.

Again, there is a record in the same issue[3] of the outbreaks of botulism within the past year. In the study of this the bacteriologist has awakened the medical profession to the reality of the menace, the quarters whence it may be expected, and the nature of the toxin. The immunologist has brought antitoxic treatment rapidly within the realm of successful accomplishment. This is a contribution not of the "practitioner" but of the laboratory investigator in relation to a danger not sufficiently appreciated heretofore. Intuition cannot successfully attack botulism. Similarly, the latest report of Graham[4] and his colleagues at the Washington University Medical School, St. Louis, on the development of their studies on cholecystography illustrates the dependence of a practical diagnostic technic on patient preliminary investigation. There was the long search for a substance, sufficiently harmless for introduction into man, that would be excreted by the liver in the bile and could be visualized through roentgenographic means. The organic chemist, the physiologist and the physicist were brought to the aid of practical medicine. The description of the possible application of a single new substance, sodium phenol-tetraiodophthalein, in simultaneous cholecystography and tests of both hepatic and renal functions is the culmination not of accidental discovery but of prolonged laborious effort in several fields of scientific endeavor.

It is significant of the growth of the research spirit in this country that careful inspection of almost any issue of THE JOURNAL would disclose such illustrative helpful promotions of medical progress as have just been reviewed. Lee[5] has remarked that the altruism of men of medicine has become proverbial. Their heroism in investigating and treating disease is often put to the test, and is rarely found wanting. Their ideals are high, and they can be trusted to do what is within their power to put an end to the ills of suffering humanity. Yet it should be borne in mind that scientific medicine unaided has a well nigh impossible work

1. Harris, F. S.: Scientific Research and Human Welfare, New York, the Macmillan Company, 1924.
2. Brown, P. W.: The Nature, Incidence and Treatment of Endamebiasis, J. A. M. A. **86**: 457 (Feb. 13) 1926.
3. The Frequency of Botulism: A Report of Outbreaks from 1922 to 1926, J. A. M. A. **86**: 482 (Feb. 13) 1926.
4. Graham, E. A.; Cole, W. H.; Copher, G. H., and Moore, Sherwood: Simultaneous Cholecystography and Tests of Hepatic and Renal Functions, J. A. M. A. **86**: 467 (Feb. 13) 1926.
5. Lee, F. S.: Scientific Features of Modern Medicine, New York, Columbia University Press, 1911.

before it. If it is to accomplish the final banishment of disease, Lee concludes, it must have the sympathetic cooperation and encouragement of mankind, in whose interests it continually labors.

DALLAS HOSPITALITY

When registration closed at the Dallas Session of the American Medical Association, April 23, with a total of 4,179 physicians in attendance at the session, the high point was reached for any medical convention ever held in the southern part of the United States. This climax marked the achievement of a pinnacle not only in numbers but also in scientific progress, hospitality and attention to the economic problems of medical practice.

The meetings of the House of Delegates were characterized by earnest and harmonious consideration of the problems of the day. The work of the Veterans' Bureau, the current litigation and legislation on alcohol, the presentation of expert opinion evidence in our courts of law, and the problems of medical and nursing education held attention equally with the more intimate details of organizational affairs within the American Medical Association.

The technical exhibits were beautifully housed in a structure that might well have been built specifically for the purpose. Under the same roof the scientific exhibit and the motion picture show attracted the attention of thousands of physicians, who were able to hear at first hand the results of recent investigations in laboratory medicine and to complete in the course of the week a rapid-fire course of postgraduate medical instruction. The majority of the scientific sessions of the various sections likewise were held in this structure. The clinics of Monday and the papers of the last three days attracted large audiences. Many of those in attendance expressed satisfaction with the acoustic properties and the comfortable arrangements of the halls devoted to this purpose. Of special significance in the scientific programs were symposiums on the respiratory conditions of childhood, on the surgery of the sympathetic nervous system, and on the disturbances of the heart, which outlined clearly the present status of knowledge in these fields. At the same time, the newer discoveries of medicine and of surgery relating to the use of new medicaments, of roentgen-ray, radium and physical therapy, and of new methods for the control of hypertension were not neglected. Finally, the programs of the scientific sections were marked by an unusual number of addresses devoted to methods of organization and to promulgation of the benefits of medicine on a large scale to the public.

Above all else, the Dallas Session was characterized by a form of interest and entertainment that has become proverbial under the name of "Southern hospitality." It seemed, indeed, that every citizen of the community had schooled himself in the thought that the week of April 19-23 was to be devoted to the care of the visiting physicians and their guests. The clubs, department stores, hotels, taxi-drivers, street-car employees—in fact, all lay organizations and individuals who came into contact with those attending the session—seemed to be willing to do everything in their power to see to it that the conventionist was served in the most exemplary manner. The organization of such extensive luncheons as the barbecue, at which some eight thousand guests partook of freshly slaughtered and roasted Texas cattle, the gift of Dr. Dean, and the Mexican luncheon tendered by the Dallas County Medical Society indicated a supervising skill on the part of the Committee of Arrangements which met with a universally grateful response. The lack of metropolitan entertainment facilities in a community the size of Dallas gave the Committee of Arrangements opportunity to provide unusual events for the delegates and visitors during the times when attendance was not required at the scientific or business sessions. The dinners, dances, receptions and the impromptu vaudeville held for large groups of visitors emphasized the social qualities of the annual session. The dispersion of the visitors after the scientific meetings, such as occurs in larger communities, was avoided to the interest of harmony and pleasant companionship for a far greater number than are ordinarily entertained in this manner at a medical convention.

The citizens of Dallas, the Committee of Arrangements, the press and the organizations of that city received the well merited thanks of the House of Delegates for the whole-hearted manner in which they took the American Medical Association into their hearts and made the Seventy-Seventh Annual Session not only the greatest medical meeting ever held in the South, but also one of the greatest ever held in this country.

HYPOGLYCEMIA AND CONVULSIONS

The manifestations of disease associated with an abnormally high content of sugar in the blood have long been the subject of serious experimental and clinical investigation, particularly in diabetes. If the development of scientific technic, notably micro-analysis of the blood, may be regarded as most largely responsible for the interest in hyperglycemia, it is probable that the study of the effects of insulin in the body has awakened an interest in the reverse condition of hypoglycemia. An unduly lowered level of circulating glucose in the blood is likely to be attended by characteristic symptoms often of menacing severity. Normal health thus seems to be concerned in no small measure with steering a path between the Scylla of hyperglycemia and the Charybdis of hypoglycemia.

In some respects the relationship between the blood sugar level and the appearance of symptoms is the

same in various species.[1] Convulsive seizures occur when the hypoglycemic condition becomes extreme, and the pathogenesis of such conditions is indicated by the fact that administration of sugar has an antidotal effect. This is true whether the hypoglycemia is the result of overdosage with insulin or of extirpation of the liver and consequent exclusion of the glycogenic functions, as demonstrated by Mann and Magath.[2] It may still be debated whether the so-called hypoglycemic reactions can be explained entirely by the low content of blood sugar. Secondary associated detrimental factors may come into play; thus, one can imagine the accumulation of toxic substances rendered possible by disturbances in sugar metabolism. In any event, however, the menace of hypoglycemia, whatever its ultimate explanation may prove to be, is clinically a real one.

The history of medicine affords many illustrations of how the precise description of a pathologic entity has been followed by recognition of its previously unsuspected application to certain clinical conditions. Thus, recognition of the effects of experimental injury to the auriculoventricular conduction tissues of the heart was soon followed by new interpretations of various types of disturbed coordination of the heart beat. Similarly, the significance of hypoglycemia appears to be exemplified in certain somewhat obscure types of convulsions long known to occur in children at the outset of acute infections in particular. Josephs[3] of the Johns Hopkins University has furnished illustrations of the onset of convulsive attacks after short periods of fasting, often scarcely more than overnight abstinence from eating. Whereas in healthy children the sugar content of the blood may be little altered through such an alteration of the daily regimen so that the decrement does not exceed 15 mg. for each hundred cubic centimeters of blood, the febrile patients often exhibit hypoglycemia that reaches convulsive levels. Recurrent vomiting in children may have a similar provocation. Fever, though favoring the abnormal effects, is not, according to Josephs, necessary for the production of convulsions. The significance of the fever is probably twofold. In the first place, anorexia almost invariably accompanies the acute infections of childhood, and this anorexia may easily account for a period of fasting. The second effect of the fever is rather hypothetic. For some reason the children seem unable to mobilize their carbohydrate as rapidly as it is needed, with the result that the concentration of sugar in the blood falls. Fever, together with a short fast, has the effect of producing an attack, when simple fasting for the same length of time merely causes a lowering of the blood sugar. According to Josephs, furthermore, fever may either have an effect on the metabolism by diminishing mobilization of carbohydrate or, as seems quite probable, by increasing the rate at which the available carbohydrate is used up; or else it may merely render the child's nervous system more unstable, so that a lowered concentration of sugar in the blood, which under ordinary conditions causes no disturbance, would cause convulsions at the higher temperature. Ketosis is frequently an accompaniment of convulsions from fasting in acute infections, but the etiologic significance of the acetonemia remains doubtful.

1. Macleod, J. J.: Insulin, Physiol. Rev. **4**: 21 (Jan.) 1924.
2. Mann, F. C., and Magath, T. B.: Am. J. Physiol. **55**: 285, 1921.
3. Josephs, Hugh: Fasting as a Cause of Convulsions, Am. J. Dis. Child. **31**: 169 (Feb.) 1926.

BISMUTH COMPOUNDS IN ANTISYPHILITIC THERAPY

In addition to organic arsenicals and mercury compounds, preparations of bismuth have found a place in antisyphilitic therapy in the last five years. The usefulness of bismuth for this purpose seems to be assured, but there is pressing need of dependable evidence as to the sort of compounds of the element that are most likely to prove useful and as to the cases in which they should be applied. Arsenic and mercury are not uniformly or universally successful; there are cases known in practice as arsenic-fast or mercury-fast. To have an additional potent drug available for the attack in such resistant instances represents a distinct step toward progress. Not a few syphilologists already regard bismuth, properly used, as superior to mercury, though second to arsenicals, in the treatment of syphilis.[1] The spirocheticidal potency of bismuth seems to have been demonstrated in both the experimental and the clinical disease.[2] Current discussions center largely about the problems of the choice of therapeutic preparations, and to the mode of administration and their limitations and contraindications.

In a study sponsored by the Therapeutic Research Committee of the Council on Pharmacy and Chemistry of the American Medical Association, Cole, Farmer and Miskdjian have demonstrated anew that the use of suspensions of finely divided metallic bismuth is inadvisable, for such preparations tend to remain unabsorbed for long periods. This fact has been clearly established by roentgenographic observations, and at once warns against the danger of cumulative action of a toxic substance. The contention of French writers in particular, that insoluble bismuth salts must be injected biweekly in order to have a gradual, even absorption of the metal, is not borne out by these investigations. Insoluble salts of bismuth, such as the oleate, likewise failed to indicate worth-while absorption after injection deep into the lumbar muscles. The findings show that injections of metallic bismuth are dangerous and, if persisted in, will lead to cumulative absorption and pos-

1. Discussion on Cole, H. N.; Farmer, H. L., and Miskdjian, Hagope: Intramuscular Absorption of Some Insoluble Bismuth Compounds as Revealed by the Roentgen Ray, Arch. Dermat. & Syph. **13**: 227 (Feb.) 1926.
2. Levaditi, C.: Le bismuth dans le traitement de la syphilis, Paris, Masson et Cie, 1924. Gruhzit, O. M.: Bismuth Salicylate in Experimental Rabbit Syphilis, Arch. Dermat. & Syph. **13**: 195 (Feb.) 1926.

sibly even to fatal results. The same is probably true, although to a lesser extent, of bismuth oleate. Bismuth salicylate likewise is not above this objection, and its use should be replaced by one of the more soluble bismuth salts—perhaps the potassium bismuth tartrate preparations. These salts, especially if injected intragluteally once a week, are probably not so likely to give rise to cumulative action. However, the patient should be observed closely, as even this salt is not above criticism so far as its absorption is concerned.

In contrast with arsenical therapy, the intravenous administration of bismuth compounds appears to be strictly contraindicated.[3] When suitable preparations are cautiously employed, undesirable complications, such as stomatitis or kidney involvement, can for the most part be avoided. Schamberg,[1] among many others, has voiced the belief that today bismuth is superior to mercury for the treatment of syphilis. In the animal experiments he has been able to destroy the spirochetes much more rapidly. Mercury and bismuth act the same on the kidneys, but in his opinion the bismuth is less toxic and more therapeutic. He thinks that it occupies a position between the organic arsenicals and mercury. It is Schamberg's custom to use intravenous injections of organic arsenicals and at the same time injections of bismuth. Cole, whose careful investigations lend weight to his views, frankly regards bismuth as a valuable drug in the treatment of syphilis, but he urges a conservative attitude until more evidence as to the precise effects of the drug is available. This caution is particularly advisable at a time when the urge to use all manner of secret commercial preparations persists. As Cole and his colleagues insist, granting that bismuth is a somewhat dangerous drug to employ in treating the human organism, surely some criteria should be evolved as to the safest, most potent and at the same time most practical preparation of this metal to be used in treating syphilis. Undeniable limitations have already been placed on record for certain types of bismuth preparations.

3. New and Nonofficial Remedies, 1925, p. 74.

Current Comment

JABEZ NORTH JACKSON—PRESIDENT-ELECT

The election of Dr. Jabez North Jackson of Kansas City, Mo., to the position of President-Elect of the American Medical Association is the recognition of a favorite son of the great Southwest whose claims to the honor have been presented to the House of Delegates on previous occasions, indicating the continued high esteem in which he is held by his fellow physicians and their unwavering loyalty to him. Dr. Jackson was born in Labadie, Mo., Oct. 6, 1868, the son of John Wesley Jackson and Jennie Clark North. His father was, at the time of his death, Vice President of the American Medical Association. As chief surgeon of the Wabash Railroad, he had played a prominent part in opening up the Southwest and in its progress. After receiving his A.M. degree from Central College, Fayette, Mo., in 1890, Dr. Jackson attended the University Medical College in Kansas City, receiving his degree in medicine from that institution in 1891. He then went for postgraduate study to the New York Polyclinic, returning to take the position of demonstrator of anatomy in his alma mater, which he held until 1895. He succeeded to the professorship of anatomy, occupying that chair until 1898, when he became professor of surgical anatomy and adjunct professor of surgery. In 1899, Dr. Jackson married Virlea Wayland of Salisbury, Mo. His continuous development in surgical technic was recognized by his appointment to the chair of professor of principles and practice of surgery and clinical surgery in 1900, which position he occupied until 1911. Dr. Jackson became interested early in the work of the National Guard, serving as assistant surgeon, and later as surgeon, of the Third Regiment of the Missouri National Guard from 1893 to 1898, and as major and brigade surgeon of the United States Volunteers in charge of the Second Division Hospital of the Second Army Corps during the Spanish-American War. From the beginning of his medical career, Dr. Jackson has been interested in the affairs of medical organization. He was president of the Medical Association of the

JABEZ NORTH JACKSON, M.D.
PRESIDENT-ELECT OF THE AMERICAN MEDICAL ASSOCIATION

Southwest in 1898, of the Kansas City Academy of Medicine in 1900, of the Missouri State Medical Association in 1904, and of the Western Surgical Society in 1913. He also has been prominent as a member of the Missouri Valley Medical Society and of the Pan-American Medical Congress. His name is associated with many discoveries in surgical technic, and particularly with the elucidation of "Jackson's membrane" and associated surgical conditions.

"GLOBOID BODIES"

The demonstration of the occurrence of so-called filtrable or ultramicroscopic viruses, microbic agents responsible for the transmission of disease but not visible through the ordinary modes of microscopic examination, has paved the way for consideration of all sorts of intermediate types. Analogous to the existence of nonliving matter in states of aggregation varying from substances in true solution to "colloidal" solutions or even more or less homogeneous suspensions, it has become easier to conceive of animate forms capable of reproduction and existing in an almost equally varied range of aggregate sizes. In 1913, Flexner and Noguchi actually applied the expression "globoid bodies" to minute spherical forms that they believed were cultivated from the filtrable virus of poliomyelitis. Comparable statements have been made in relation to other diseases; recently, for example, Duval and Harris [1] have described a "globoid micro-organism" in cultures of the blood from dengue fever. The "bodies" in question measure a small fraction of a micron in diameter and require special technic for their visual demonstration. It has also been asserted within the last decade that certain bacteria, notably aerobes, may develop anaerobically as minute forms. On the other hand, bacteriologic investigators have maintained that all such minute structures are artefacts, such as sphere-crystals. Sometimes they remain dispersed in a complex colloidal system represented by certain mediums, only to undergo a crystallization or separation in concrete form under the influence of inoculation. It is possible, indeed, to imitate microbic growth by "inoculating" supersaturated solutions with a few crystals. Interest in these phenomena was popularly accentuated through the widely heralded studies of Barnard and Gye in England on the alleged virus of cancer. The "organisms" dealt with by them were visualized through special ultramicroscopic devices. Harris [2] of the Department of Pathology at Tulane University in New Orleans has lately defended the existence of truly animate entities in the form of "globoid bodies." He states that the inoculation into guinea-pigs of cultures containing these globoidal micro-organisms, obtained from the blood of patients infected with dengue fever, reproduced the febrile and leukocytic reactions present in this disease. Harris admits that there exist certain artefacts which resemble the colonization observed for globoid bodies, but these are inanimate structures and can be differentiated from the living micro-organismal forms. Hence Harris believes that globoid bodies are minute living micro-organisms of a much smaller size than the usual small recognized forms. They have a definite structure consistent with true micro-organisms. They can be grown in cultures which, when inoculated into the experimental animal, reproduce the disease from which they were primarily isolated.

1. Duval, C. W., and Harris, W. H.: J. Exper. Med. 40: 835 (Dec.) 1924.
2. Harris, W. H.: Globoid Bodies and Their Occurrence in Cultures, Proc. Soc. Exper. Biol. & Med. 23: 278 (Jan.) 1926.

NEW YORK'S NEW MEDICAL PRACTICE ACT

The House of Delegates, at Dallas, unanimously adopted a resolution thanking Governor Smith of New York for his interest in the protection of the people against quackery and urging him to approve the medical practice act just passed by the legislature. The act, which has had the support of the Medical Society of the State of New York, requires every physician to register annually and to pay a fee of two dollars, on or before January 1. A list of the physicians so registered is to be sent to each registrant in March, with a request that he report every known practitioner of medicine whose name is not listed. Registration fees are available for the enforcement of the act. The Board of Regents, the licensing body, is authorized to appoint inspectors to enforce the law throughout the state. Prosecutions are to be by or under the direction of the attorney general, and not by local district attorneys as at present. A "committee on grievances" is to be appointed by the Board of Regents, consisting of seven licensed physicians appointed from lists submitted by the Medical Society of the State of New York, the New York Homeopathic Society and the New York State Osteopathic Society, and three appointed independent of such nominations. This grievance committee may hear all charges against licensed physicians looking toward the revocation of their licenses. It merely reports its findings and recommendations, however, to the Board of Regents. The board may accept or modify the findings and recommendations of the committee, and in any case the defendant may appeal to the courts. The grievance committee may act as a board of arbitration in controversies between two or more physicians, or between a physician or physicians and any other person, if the parties so request. The new law, correcting a condition disclosed by a recent decision of the New York Court of Appeals, provides that in an action for damages for personal injuries or death against an unlicensed person, arising out of an act or acts constituting the practice of medicine, the fact that such person was practicing without license shall be deemed prima facie evidence of negligence on his part. An alien seeking a license to practice medicine must have declared his intention of becoming a citizen, and if he fails within six years from the date of such declaration to furnish evidence of naturalization, his license terminates. In view of the time and energy that have been devoted to the drafting and enactment of this law, the profession will look forward with interest to the results accomplished by it. The physicians of New York are apparently almost unanimous in their belief that, when effective, it will do much to protect the public against medical vagaries.

PROCEEDINGS OF THE DALLAS SESSION

MINUTES OF THE SEVENTY-SEVENTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT DALLAS, TEXAS, APRIL 19-23, 1926

(Concluded from page 1297)

HOUSE OF DELEGATES

Second Meeting—Tuesday Morning, April 20

The House of Delegates was called to order at 9:30 a. m. by the Speaker, Dr. Fred C. Warnshuis.

Supplementary Report of the Committee on Credentials

A supplementary report of the Committee on Credentials was submitted by the Chairman, Dr. J. D. Brook, Michigan, who reported that there had been filed with the committee credentials totaling 141.

There being no objections, the supplementary report of the Committee on Credentials was received.

Report of Reference Committee on Sections and Section Work

Dr. Tom B. Throckmorton, Section on Nervous and Mental Diseases, read the report of the Committee on Sections and Section Work:

1. The Reference Committee on Sections and Section work begs to report that it has carefully read and discussed the report of the Council on Scientific Assembly as printed on pages 121-123, inclusive, of the Official Hand Book, and presented in substance by the Chairman, Dr. J. Shelton Horsley, and recommends that the report of the Council be approved in its entirety.

2. The committee is in full accord with the traditional custom of the Council in its method of assigning the hours of the sections so as to alternate the time of section meetings from year to year.

3. The Reference Committee on Sections and Section work feels that the Council on Scientific Assembly has given an attentive ear to requests made for the creation of a new section on physical therapy and that the Council has acted most wisely and judiciously in unanimously adopting the policy of nonrecommendation of such request until it has been amply shown that the need for a separate section on physical therapy actually exists.

4. The committee feels that the Council on Scientific Assembly was amply justified in not recommending the reestablishment of a section on stomatology, and that the suggestion of the Council that papers dealing with stomatologic subjects be assigned for presentation in the Section on Miscellaneous Topics was fair and was actuated for the best interests of the Association.

Respectfully submitted.

J. L. ROTHROCK,
W. P. EAGLETON,
W. G. RICKER,
TOM B. THROCKMORTON,
Chairman.

Dr. Tom B. Throckmorton, Section on Nervous and Mental Diseases, moved that the report be adopted.

The motion was seconded by Dr. Albert Soiland, California, and carried.

Report of Reference Committee on Medical Education

Dr. F. B. Lund, Massachusetts, read the report of the Reference Committee on Medical Education:

The report of the Council on Medical Education and Hospitals records the figures of the Council's activities during the last year. It is a record of industrious work in the line of its previous reports and of enormous responsibilities.

These activities in general the committee approves.

The improvement in the facilities for graduate instruction as a direct result of its labors is also of great value and importance.

The inspection of hospitals has resulted in perfecting facilities for the intern training to 4,683 graduates, and in the corresponding improvement of and advantage to the hospitals themselves.

The value of the elimination of hospitals where unethical practices are carried on is self-evident.

The list of the colleges of arts and sciences which are adequate to provide premedical training is also an extension of the Council's work which is of great value and importance in the guidance of those intending to make medicine a career.

The list of clinical laboratories ought to prove of great value to practitioners by enabling them to get work done that is of no value unless it is done well, but when well done and accurately done is of the greatest value.

But, owing to the immense extent of the work involved, in the opinion of the committee, it is important to secure the cooperation of every state medical society and its component societies in order to compile a complete and adequate list of clinical laboratories.

In regard to the facilities for the enrolment of medical students, a serious question is raised in the minds of your committee as to whether properly qualified students are now able to secure enrolment in medical schools, and we are glad to note that an investigation is now being made with this as its object.

Age at graduation ought to be reduced, and the committee recommends to the Council on Medical Education and Hospitals that further efforts be made to reduce the average age at graduation. In this connection the committee recommends that the resolution introduced by Dr. Southgate Leigh, Virginia, be adopted; namely, that the House of Delegates request the Council to consider the feasibility of allowing medical students credit for courses taken during the summer months, in a manner similar to the plan followed in the academic departments. The Council is further requested to confer with the various medical schools, asking their cooperation in this important movement.

In regard to nursing education, your committee regards with great approval the resolution introduced by Dr. E. Eliot Harris of New York, and recommends its adoption and enforcement:

Resolved, That there is a great need throughout the country for a basic trained nurse, and that all pupil or student nurses shall receive basic training in training schools connected with hospitals giving courses of two years. The curriculum should be thoroughly revised so as to provide bedside instruction, class room lectures and demonstrations and, above all, the teaching of the art of nursing by precept and example so as properly to fit the pupils or students for their work as nurses in the hospitals and in the homes.

Graduates, after passing the state examination, should be registered as trained or, if preferred, registered nurses. Such trained or registered nurses may become public health or other specially designated nurses after being properly admitted to postgraduate schools for nurses and passing the required examination.

Resolved, That the Board of Trustees appoint a committee on nurses and nursing education to investigate and report to the next House of Delegates the results of its investigation and constructive thought on the nursing question and especially on the subject of increasing the number of bedside nurses throughout the several states; the Committee on Nurses can be empowered to confer with the National Nurses Association, hospitals and other committees having similar objects.

In the report of the Council, on page 116, in the fine print, the committee feels that the phrase "under the orders of the physician or the regular staff of the hospital" should be changed to "of a reputable physician practicing in the hospital." This

change is recommended in order to provide for reputable hospitals which admit private patients under the care of physicians not on the regular staff, the so-called "open hospital."

J. N. HUNSBERGER,
W. A. PUSEY,
B. R. MCCLELLAN,
F. B. LUND,
Chairman.

Dr. F. B. Lund, Massachusetts, moved that the report be adopted. The motion was seconded by Dr. I. A. Abt, Section on Diseases of Children, and carried.

Report of Reference Committee on Legislation and Public Relations

CONTRACT PRACTICE

Dr. H. M. Brown, Wisconsin, stated that the Committee on Legislation and Public Relations had four bills brought before it, one by Dr. A. D. Dunn, Nebraska. The report on the resolution is that the committee recognizes the need of action and recommends that the Board of Trustees be requested to furnish the Judicial Council such assistance as may be necessary for the proper prosecution of the work and recommends the passage of the resolution.

Dr. H. M. Brown, Wisconsin, moved that the resolution be adopted. The motion was seconded by Dr. W. D. James, North Carolina, and carried.

MEDICAL LEGISLATION

The next item of the report of the committee referred to a resolution introduced by Dr. Southgate Leigh, Virginia:

WHEREAS, The strength of the medical profession in the field of legislation is lessened by lack of uniformity in policies and methods; and

WHEREAS, Such uniformity can be promoted and established only through cooperation among the several state associations whereby each will have the benefit of the knowledge and experience of all others; and

WHEREAS, Such cooperation can be best established through the Board of Trustees, acting through the Bureau of Legal Medicine and Legislation; be it

Resolved, That every state association be urged to cooperate to the fullest possible extent with the Board of Trustees in all matters of legislation, state and national; and be it further

Resolved, That the Board of Trustees be requested to extend to every state association all such assistance as may be possible in defining and carrying into effect its legislative policies, and in promoting uniformity in them.

Dr. H. M. Brown, Wisconsin, moved that the resolution be adopted. The motion was seconded by Dr. A. D. Dunn, Nebraska, and carried.

EXPERT OPINION EVIDENCE

Dr. H. M. Brown, Wisconsin, read the report of the Committee on Expert Opinion Evidence and moved that it be adopted. The motion was seconded by Dr. A. J. Bedell, New York.

Dr. J. N. Henry, Pennsylvania, suggested an amendment on the ground that there was no use passing a resolution giving moral support to a vague resolution of this sort. He stated that a letter said that the bill was approved by the American Institute of Criminal Law and Criminology and by the American Bar Association, the Committee on Jurisprudence and Law Reform of the American Bar Association. The amendment suggested was as follows:

And further be it

Resolved, That the House of Delegates endorses certain principles approved by the American Bar Association and by the American Institute of Criminal Law and Criminology, that in civil and criminal cases where the issue of insanity is raised, the court may appoint expert medical witnesses who shall be paid out of public funds and who may furnish a written report.

Dr. Henry stated that this bill was enacted substantially in Wisconsin, and the general provisions of the first section were enacted in New York.

Dr. A. E. Bulson, Jr., Indiana, moved that the amendment be incorporated with the reference committee's report. The motion was seconded.

Dr. H. W. Orr, Section on Orthopedic Surgery, suggested that, following the word "insanity," where the question of insanity was raised, there be added the words "or compensation for industrial injury."

Dr. J. N. Henry, Pennsylvania, did not accept this amendment.

Dr. G. E. Follansbee, Ohio, in discussing the adoption of the amendment, said that if the House was of the opinion that those details should be included in the report of the reference committee, he believed that the resolution as originally presented more fully covered the thing than the amendment that had been introduced. The matter of the expert opinion witness in matters of insanity was important, but no more important in many of our large cities than the matter of the expert opinion the witness establishes where insanity is not introduced. It was quite important that we should have unbiased witnesses appointed by the court. Insanity was not involved in civil cases. If this amendment should be adopted, it covered only a half of the abuse of expert opinion evidence. If there was any way to refer the report back to the reference committee with instructions how to rewrite it including civil cases as well as criminal cases, this was the action that ought to be taken.

A substitute motion, that the whole thing be referred back to the committee with instructions to report at some later meeting was seconded by Dr. Bulson, Indiana, and adopted.

Dr. H. M. Brown, Wisconsin, moved the adoption of the report as a whole, eliminating the part of the report that had been referred back to the committee. The motion was seconded and carried.

Report of Reference Committee on Hygiene and Public Health

Dr. A. T. McCormack, Kentucky, read the report of the Reference Committee on Hygiene and Public Health:

We beg leave to submit the following report in regard to resolutions referred to this committee.

We endorse that part of the report of the Board of Trustees in regard to the sale and distribution of zinc stearate as appears on page 80 of the Hand Book, and recommend its adoption.

We endorse the report of the Advisory Committee on Trachoma Among the Indians, as submitted by the special committee on this subject, and recommend its adoption.

We endorse the report of the Special Committee on Narcotic Drugs and recommend its adoption.

We recommend that another conference on periodic health examination be held next year at the same time the conference of state secretaries takes place.

We recommend the adoption of the following resolution in regard to the use of the title "Doctor":

WHEREAS, The title "Doctor" in a medical sense has from the earliest times been associated with the treatment of human ailments; and

WHEREAS, Most of the states now grant licenses to treat the sick to persons of limited educational qualifications, such persons not being graduates of reputable medical schools; and

WHEREAS, The use of the title "Doctor" by persons of inferior educational qualifications constantly misleads the public, resulting in much unnecessary suffering and many untimely deaths; therefore, be it

Resolved, That it is the sense of the American Medical Association that, for the protection of the public, the title "Doctor" in a medical sense be restricted to doctors of medicine and doctors of dental surgery.

A. T. MCCORMACK, Chairman,
S. W. WELCH,
CHARLES E. HUMISTON,
L. H. MCKINNIE,
CHARLES E. MONGAN.

Dr. A. T. McCormack, Kentucky, moved the adoption of the report of the committee as a whole. The motion was seconded by Dr. Soiland, California, and carried.

Report of Reference Committee on Amendments to Constitution and By-Laws

MEETING IN CANADA

Dr. J. W. Van Derslice, Illinois, Chairman, reported that the Reference Committee on Amendments to Constitution and By-Laws recommended that the amendment offered by Dr. Keiper amending Article 10 of the Constitution be not approved.

Dr. J. W. Van Derslice, Illinois, moved that the report be adopted. The motion was seconded by Dr. Moll, Michigan, and carried.

RECOGNITION OF LAY SECRETARIES

The committee recommended that the amendment offered by Dr. Hunt, New York, providing for the recognition of lay secretaries of constituent state associations be not approved. While recognizing their excellent work and attendance at the meetings, yet it is considered not feasible to give them official representation in the sessions.

Dr. J. W. Van Derslice, Illinois, moved the adoption of this portion of the report of the committee. Seconded and carried.

APPOINTMENT OF EMERGENCY OFFICERS

The committee recommended and approved that there be added to the words "appoint emergency committees" the following: "In the case of a vacancy by death or otherwise in the office of President-Elect, the Secretary or Treasurer, the Board of Trustees shall fill the vacancy for the unexpired term."

Dr. J. W. Van Derslice, Illinois, moved that addition of this to the By-Laws, authorizing the Board of Trustees to fill the office in case of vacancy of Secretary, President-Elect, and Treasurer. The motion was seconded by Dr. C. J. Whalen, Illinois. After discussion by Dr. E. B. Heckel, Board of Trustees, and Dr. A. H. Bunce, Georgia, the motion to adopt this part of the report was lost.

PLACE OF ANNUAL MEETING

The committee suggested a change in Chapter 6, Section 1, under the duties of the Board of Trustees, "The Board of Trustees shall select the place of meeting for the annual meeting of the American Medical Association." This will come up for voting at the next regular session.

This notice of amendment to the Constitution and By-Laws will lay over until next year.

Dr. J. W. Van Derslice, Illinois, moved the adoption of the report as amended. Seconded by Dr. Bert L. Eiker, Iowa, and carried.

Delegates to Dedication of Murphy Memorial

Dr. E. B. Heckel, Board of Trustees, reported on the appointing of delegates to represent the Association at the dedication of the Murphy Memorial. The Board approves of this project and suggests that the Speaker of the House appoint two delegates to represent the Association at the dedication of the Murphy Memorial, June 10-11.

Dr. Albert Soiland, California, moved that the House adopt the recommendation of the Board of Trustees that the Speaker appoint two delegates from this body to represent the American Medical Association at the dedication of the Murphy Memorial. Seconded and carried.

COSMETICS

The Secretary read the supplemental report with reference to cosmetics.

The House of Delegates at Chicago, 1924, adopted a resolution authorizing the fostering of legislation to place cosmetics under the restrictions of the food and drug laws, to require the names of all poisonous ingredients to be placed on labels, and to prohibit the use of the most harmful ingredients in cosmetics. The resolution adopted provided further for the promotion of legislation to prohibit the use of paraphenylendiamine as a dye for hair and fur. The Bureau of Legal Medicine and Legislation undertook to study the evidence to support a plea for the enactment of such legislation and to enable the bureau to draft the legislation proposed. At the request of the bureau, the Board of Trustees appointed a technical committee, to cooperate.

In 1925, at Atlantic City, the House of Delegates reiterated its views in the following resolution:

WHEREAS, There has been an enormous increase in the use of cosmetics; and

WHEREAS, Many of these cosmetics contain chemicals irritating and dangerous to the human organism; and

WHEREAS, A special committee of the American Medical Association is now in existence, appointed to investigate these problems; be it

Resolved, That the Trustees of the American Medical Association be urged to finance and push the work of this special committee.

Work under these resolutions continues. Questionnaires have been submitted to approximately 450 dermatologists seeking reports of injuries due to the use of cosmetics, hair dyes and dyed furs, and the replies are being tabulated. The evidence at hand, however, is insufficient to form the basis of any recommendation.

This was referred to the Reference Committee on Hygiene and Public Health.

Supplemental Report on Medical Education

Dr. F. B. Lund, Massachusetts, read the following supplemental report of the Reference Committee on Medical Education:

On page 117, the last three lines reading "A committee on the public responsibilities of the medical profession be created consisting of one member for each of the councils and bureaus and at least three additional serving for five year term," the committee recommends that for the phrase beginning with the word "consisting" the following be substituted:

"Consisting of five members appointed in the usual manner, namely: Nominated by the President and elected by the House of Delegates."

J. NEWTON HUNSBERGER.
W. A. PUSEY.
BEN R. MCCLELLAN.
F. B. LUND, Chairman.

Dr. F. B. Lund, Massachusetts, moved that the report be adopted. Seconded by Dr. B. R. McClellan, Ohio, and carried.

Address by Hubert Work

The Speaker presented the first Speaker of the House of Delegates, Hon. Hubert Work, Washington, D. C., Secretary of the Interior, who addressed the House as follows:

Mr. Speaker and Members of the House of Delegates:

It affords me the greatest pleasure, I assure you, to stand here before you again if only for a moment in this semi-detached position. I have a memory of more than twenty years' association with this House of Delegates. For twenty years I held office of some sort or other in this House. I thought then, and I think now, that no body of men selected from the United States for any purpose or from any locality has quite the acumen that the House of Delegates of the American Medical Association has.

Speaking of it the other day to a man with whom I was traveling, he said, "It is perhaps like Congress."

I said, "Yes, and no. These men are all educated and they are all mind readers and no man can stand before the House of Delegates for a series of years, as your Speaker has, and stand up except that they read his mind before he frames it in words."

I would like to say a word perhaps from a detached position about the American Medical Association and its present status as I see it now. We all know that a monument is a structure erected in a community perhaps that stands away from any other similar structure made from the same materials in that vicinity. It is to commemorate some person or some thing. The American Medical Association, when George Simmons left it, who was the architect of this monument to American medicine, had turned over to it a monument in the shape of a magnificent building in Chicago, and the splendid organization that he matured and left was merged into the new organization. It was quite a revolution. Yet this change was accomplished without any disturbance and of course with great improvement to the medical organization.

I see before me many men here who mixed the mortar and who carried the hod and who laid the stone to erect this great monument of the American Medical Association to American medicine. Each of us perhaps has borne his humble part in it, but each part was necessary to the consummation of the whole. I for one look back with the greatest pride on any small part I may have had in erecting this monument to American medicine and to the medical profession of the United States.

Gentlemen, I thank you. (Applause.)

Cablegram to Dr. Simmons

Dr. A. T. McCormack, Kentucky, moved that the Speaker and the Secretary be instructed to send a cablegram to Dr. Simmons expressing the love, affection and gratitude of this House. Seconded by Dr. O. S. Wightman, New York, and carried unanimously.

Report of Reference Committee on Report of Board of Trustees and Secretary

Dr. E. Eliot Harris, New York, presented a partial report on the Board of Trustees and moved that it be considered in a Committee of the Whole in executive session.

Dr. Holman Taylor, Texas, read a partial report by the Reference Committee on the Board of Trustees.

Dr. E. Eliot Harris, New York, moved that the portion of the report on the Board of Trustees be referred to a Committee of the Whole in executive session. Seconded by Dr. E. J. Goodwin, Missouri, and carried.

The Speaker called as Chairman of the Committee of the Whole the Vice Speaker of the House, Dr. Rock Sleyster, Wisconsin.

The House of Delegates went into a session of the Committee of the Whole.

The House of Delegates reconvened at 12 o'clock, the Speaker, Dr. Fred C. Warnshuis, in the chair.

Dr. Rock Sleyster, Wisconsin, chairman, reported that the Committee of the Whole had for consideration the report of the Reference Committee on reports of the Board of Trustees and Secretary. The Committee of the Whole accepted the reports as reported by this committee and recommended its adoption by the House of Delegates, as follows:

We have conducted an extended hearing on several matters referred to our committee and beg at this time to submit a partial report, covering those matters referred to in the hearing and on which the committee has been able to make decision.

REPORT OF BOARD OF TRUSTEES

On pages 6 and 7 of the Hand Book will be found a discussion of the National Prohibition Act, and the action of the Board of Trustees, pursuant to a resolution on the subject adopted by this House in 1925. On page 100 of the Hand Book will be found the report of the committee appointed by the Board of Trustees at the instance of the House of Delegates and under the resolutions already referred to. This report sets out certain regulations intended to support the national prohibition authorities and protect the medical profession, in the instance the quantitative limitations features of the National Prohibition Act, as amended, be declared unconstitutional by the U. S. Supreme Court:

Our committee recommends that the committee created by the above mentioned resolution of the House of Delegates and appointed by the Board of Trustees, to cooperate with the Commissioner of Internal Revenue and the Secretary of the Treasury, be continued as at present constituted in the matter of personnel, with such additional members as the Board of Trustees may determine, and that the said committee report, through the Board of Trustees, to the next session of the House of Delegates.

On page 82 of the Hand Book, the subject of the Gorgas Memorial is discussed. The Board of Trustees declined to agree to a certain degree of participation in the project in hand, reciting the reasons for so declining. Our committee feels that the medical profession warmly approves well conducted and properly controlled efforts to educate the public on health matters, but feels that it might be a dangerous expedient to lend its influence to the creation of an enormously financed foundation, under federal charter, for these purposes, without adequate control by this body. It will be understood that the present plans contemplate control by a mixed lay and medical board, on which the Association has less than 10 per cent representation, and that the accomplishments of the foundation thus created depend almost entirely on the active cooperation of the medical profession. Your committee recommends that the Board of Trustees stand ready at all times to consider cooperative proposals looking to the perfection of feasible, safe and effective plans of cooperation, reporting from time to time to the House of Delegates.

On page 84 of the Hand Book appears a discussion of the lack of uniformity in reporting deaths in the puerperal state, having reference to a resolution introduced by Dr. Mongan, Massachusetts, in 1924. There appears this language:

"Methods of securing and of editing death returns in England and Wales and those found in use elsewhere were defined in the statement of the Bureau of Census, in which it was pointed out that to adopt the English methods simply because it produces a lower rate than some other methods would be unsound practice."

Our committee feels that the Bureau of Census has missed the point of Dr. Mongan's resolution, which was not to show a lower death rate but rather to separate deaths *associated* with pregnancy from those *directly due to* pregnancy, that there may be a fair basis of comparison in this regard with England and Wales.

On page 86 of the Hand Book, the subject of a full-time representative in Washington is discussed. The Board of Trustees has declined to appoint such a representative in Washington on a full-time basis, as requested by the House of Delegates at Atlantic City last year, in the belief that the House of Delegates did not understand at the time the aforesaid action was taken that the Association had connections in Washington that were believed by the Trustees to be adequate. A majority of the reference committee of last year which had recommended a full-time representative in Washington appeared before this committee and asked that the matter be considered by the House of Delegates in Executive session, as a Committee of the Whole, and it is so recommended.

Respectfully Submitted.

E. ELIOT HARRIS, Chairman.
C. J. WHALEN.
HOLMAN TAYLOR.
E. J. GOODWIN.
A. H. BUNCE.

Dr. Rock Sleyster, Wisconsin, moved that the report be adopted. Seconded by Dr. Thomas C. Chalmers, New York.

Dr. Rock Sleyster, Wisconsin, added to the report that the Committee of the Whole would be in favor of advising the House of Delegates that the Board of Trustees be requested to provide a representative in Washington during the legislative sessions.

The report of the Committee of the Whole reporting on the report of the Reference Committee on Board of Trustees and Secretary was adopted.

Report of the Reference Committee on Miscellaneous Business

Dr. Bertram L. Bryant, Maine, read the report of the Reference Committee on Miscellaneous Business:

The Reference Committee on Miscellaneous Business thinks the resolution introduced by Dr. D. E. Sullivan, New Hampshire, asking that a survey be made of the physical condition and financial status of those of our members who are unable to earn their support by the practice of their profession, with the objective of establishing and maintaining a home for their care, is well worthy of favorable consideration by our Board of Trustees, and recommends that a committee be appointed by the President empowered to act, in carrying out the intent of this resolution.

B. L. BRYANT.
C. O'DONOVAN.
E. D. EBRIGHT.
M. L. STEVENS.
E. P. NORTH.

Dr. Bertram L. Bryant, Maine, moved that the report be adopted. Seconded by Dr. A. E. Bulson, Jr., Indiana, and carried.

The Secretary read a communication from the Secretary of the Canadian Medical Association inviting the American Medical Association to send a delegate to its annual session. The invitation was referred to the Board of Trustees.

A letter and other communications from Dr. Robert V. Day, a member of the House of Delegates, from California,

having to do with the passage by Congress of a bill to secure the appointment of Dr. Derbyshire as a surgeon in the regular corps of the United States Public Health Service, so that he may be retired with the advantage of the pay granted to officers of that advantage, was laid on the table.

The Secretary read a letter from the general secretary of the National Catholic Welfare Conference asking the American Medical Association to protest against pending legislation authorizing the dissemination through the mails of information concerning contraception. The matter was referred to the Board of Trustees.

NEW BUSINESS

Bill Coordinating Public Health Activities

Dr. S. W. Welch, Alabama, introduced the following resolution:

Resolved, That the House of Delegates of the American Medical Association endorse the principles embodied in H. R. 10125, a bill to provide for the coordination of the public health activities of the government and for other purposes.

This was referred to the Reference Committee on Legislation and Public Relations.

Affiliate Fellowship

Dr. E. J. Goodwin, Missouri, introduced the following amendment to Section 5, Chapter XI, of the By-Laws, merely giving affiliate fellows the subscription to THE JOURNAL without cost to them.

Amend Section 5 of Chapter XI of the By-Laws as follows: Strike out the word "not" at the end of line 13 and the words "except by" in line 15, and substitute the word "without" for the words "except by," so that the section when amended shall read as follows:

SEC. 5. AFFILIATE FELLOWS.—A Fellow who has been a Fellow for a continuous term of fifteen (15) years, who is not less than sixty-five (65) years of age, and who is an honorary member of his component society and of his constituent association, or is connected with these organizations in an equivalent manner whereby he is relieved from the payment of dues or fees, on request of his constituent association may be made an Affiliate Fellow by a majority vote of the House of Delegates of this Association. Affiliate Fellows shall be privileged to participate in the Scientific Assembly of the Association; they shall not be required to pay Fellowship dues and shall receive THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION without personal subscription. Affiliate Fellowship shall be conditioned on such an Affiliate Fellow continuing the relationship with his constituent association herein defined.

This was referred to the Reference Committee on Constitution and By-Laws.

Address of Col. Gilbert E. Seaman of the Veterans' Bureau

Dr. H. M. Brown, Wisconsin, asked the privilege of the floor for Colonel Seaman of the Veterans' Bureau.

Dr. A. E. Bulson, Jr., Indiana, moved that the floor be granted to Colonel Seaman. Seconded by Dr. J. Norman Henry, Pennsylvania, and carried.

Col. Gilbert E. Seaman, Veterans' Bureau, spoke as follows:

Mr. Speaker, and Members of the House of Delegates:

I come representing the director of the United States Veterans' Bureau and the medical director, and bring to you and to the American Medical Association the greetings of General Hines, the director, and Dr. Crossman, the medical director, for the purpose of presenting a few thoughts in connection with the problems of the medical service of the United States Veterans' Bureau.

The United States Veterans' Bureau is without doubt one of the greatest relief organizations in the world. The administration of the bureau presents problems and difficulties, solution of which calls for the highest class of service.

During the formative period, the bureau's work has been subject to considerable criticisms, and no doubt some of this criticism was warranted, but it is believed that the work is now on a sound basis and is going forward in accordance with the desires of the people and the government and to the satisfaction and relief of ex-service men. In any case, the administration of the present director of the Veterans' Bureau has received the general approval of the public and the veteran. Economies have been effected and facilities for the care of the ex-service man have been much improved and enlarged in order to meet the requirements of the Veterans' Bureau law. The Director of the U. S. Veterans' Bureau welcomes constructive criticism. He has perhaps the most difficult problem that could fall to the lot of any servant of the government. It is recognized that the problem is in a very large measure a medical problem.

The medical service of the U. S. Veterans' Bureau has the largest number of hospitals, dispensaries, and by far the largest number of patients under one organization in the United States, if not in the world. The medical director and the medical service as a whole recognize the fact that this service cannot be rendered in accordance with the desires of the people, the Congress, and the interests of the veteran without the best cooperation and the generous assistance of the medical profession of America, particularly the medical profession as represented by the American Medical Association. It is for that reason that each succeeding year some effort has been made to interest the American Medical Association, and to gain your confidence and support.

The American Medical Association has always been noted for its cordial support of the various medical arms of the government in the solution of their problems. This association deserves a large measure of credit for the success of the medical department of the Army, the Navy, and the Public Health Service; and now, this latest medical arm of the government comes to you with its problems, endeavors to state them, asks for your careful consideration, for your expert advice, and for your cooperation in the solution of their difficulties.

The medical service of the Veterans' Bureau does not make the law as it applies to the medical care and relief of veterans; that is the function of Congress representing the government and the people. The function of the medical service is to follow the provisions of the law and render to the disabled ex-service man such hospitalization and other medical care and attention as is provided by the government. It has been said that the medical service has the largest medical problem on its hands of any organization in America. It may also be said that it has the largest medical opportunity and it may reasonably be expected to take advantage of that opportunity in advancing the science and art of medicine with a primary purpose of giving the disabled ex-service man or woman the advantages of the most advanced information available to the medical profession.

There were approximately five million men and women who served in the war. Of this number a certain proportion suffered in health, or will suffer by reason of their service. The Veterans' Bureau conducts fifty hospitals and more than one hundred dispensaries. In these hospitals during the past year there have been hospitalized approximately 77,000 patients. At the end of the last fiscal year there were in hospitals approximately 27,000 patients. Of this number 83 per cent were suffering from service connected disabilities, while 17 per cent were veterans of all wars or military movements since 1897 suffering from disabilities which may or may not have been connected with military service, some having applied but their service connection not yet determined. Many of these were veterans of the Spanish American War, the Philippine insurrection, the Boxer rebellion, and later military operations, some of whom had grown old, many of them drawing small pensions, and all of them suffering from some disability, compensable or otherwise. The World War Veterans' Act provides, it is true, for the care of veterans under certain circumstances regardless of the origin of their disability, but only when hospital facilities in Veterans' Bureau hospitals are available, and preference is given to those who are financially unable to adequately care for themselves. It will therefore be seen that this very generous, many people think too

generous, and some people think unwarranted provision of the law, does not apply to a very large percentage of the total number in hospitals. The extension of Veterans' Bureau hospital facilities for the care of nonservice connected disabilities of ex-soldiers is not contemplated. It is desired to point out, however, that the law is not made by either the director or the medical service, but by the Congress representing the people, and the problem of the medical service is to efficiently apply the law and render the relief afforded under its provision.

In order to better render this relief, and do so in accordance with the generally accepted and best available medical thought and opinion, the Veterans' Bureau called to its assistance, in March, 1924, the organization known as the Medical Council, consisting of physicians and experts of national prominence representing the several specialties in medicine. This council holds two or more meetings each year at the call of the director and the medical director, and at the end of each session makes such recommendations as they see fit for the betterment of the medical service to be rendered to the disabled veteran. The head of that council is your distinguished ex-president, Dr. Ray Lyman Wilbur, and it is made up entirely of men of outstanding eminence in the medical profession, practically all of whom are leaders in the American Medical Association. As a result of the activities of the Medical Council, a medical research section was recently established in the medical service of the Veterans' Bureau and has already done excellent work in the standardization of procedure in the field of laboratory and clinical research. There have also been established diagnostic centers for the exhaustive study of cases presenting difficulties of diagnosis, or which are the subject of medical controversy. These centers afford the most modern equipment with attending staffs of outstanding qualifications, and have as their purpose, on the one hand, making a diagnosis on which a proper and compensable rating may be made, and, on the other hand, the elimination of unnecessary hospitalization and other expense. The hospitals of the United States Veterans' Bureau have been the subject of careful study by the American College of Surgeons, and all but two or three have been accepted as meeting the standard requirements of hospitals as laid down by the American College of Surgeons. The medical service has also provided for postgraduate instruction to its medical officers, particularly in the fields of tuberculosis and neuropsychiatry, which, largely on account of the provisions of the law, constitute a very important part, if not a major part of the entire medical problem.

Attention is called to the fact that the 27,000 patients in hospitals at the end of the last fiscal year represent slightly more than one half of one per cent of those who were in the military service during the war, not an unreasonably large number surely. The service men are not all in hospitals, only one out of 200 who served. Of this 27,000 cases at least 20,000 were cases of tuberculosis and neuropsychiatric disease, many of which were hospitalized by reason of the presumptive clauses of the law.

In the earlier history of the Veterans' Bureau, by reason of the attitude of the people and the ex-service men, the emphasis was laid too largely on compensation; but with a better understanding of the problem on the part of all concerned, including the service man, the emphasis is now being laid on cure and rehabilitation, rather than compensation, and for the future this will be not only the slogan but the true guiding principle of the medical service of the U. S. Veterans' Bureau.

It is believed that a provision of the law granting hospitalization to those without compensable disabilities, and particularly those in needy circumstances, has some merit at least from the standpoint of public policy. It is not always an easy matter to convince the people in any community, or the ex-service man, that military service had nothing to do with an existing disability, and also that a man who has rendered military service is not in some measure at least entitled to the consideration of his government. It is believed that good public policy dictates that there be generous recognition of the sacrifices often involved in military service in time of war, and no doubt that has been the dominating note in the policy of the United States toward the veterans of all wars. It is true that the application of this policy at times involves mistakes in individaul instances and perhaps expense not fully warranted in the individual case, but is this not true of all philanthropic effort? Is it not true that the many state hospitals, city hospitals, private philanthropic hospitals, and public and private clinics and dispensaries render service often to those who not only could afford to do so, but would be benefited by carrying their own burdens in a larger measure and paying their own way? Is there not widespread abuse of public and private philanthropic enterprises outside of that which in individual cases doubtless obtains in the care and treatment of ex-service men at the expense of the people?

Efforts have been made to put the medical service of the U. S. Veterans' Bureau on a better basis by creating a medical corps with commission status and permanent tenure and greater emolument, so that not only for the present but for the future the best type of young men coming into medicine will be attracted to this service as a career; and your careful consideration and cooperation in the furtherance of this desirable object is solicited by the director, the medical director and medical officers of the service. With the unequaled opportunity for research and for clinical observation and experience given the proper status and adequate compensation, the Veterans' Bureau Medical Service has the opportunity of not only giving to our ex-service men the highest type of medical skill, but by their work reflecting credit and glory on American medicine. We ask your constructive criticisms and your counsel and advice.

This communication was spread on the minutes for the information not only of the House but also for the Medical profession of the country at large.

The House recessed at 12:30 p. m.

Third Meeting—Thursday Afternoon, April 22

The House of Delegates was called to order at 2 p. m. by the Speaker, Dr. F. C. Warnshuis.

ELECTION OF OFFICERS

The Speaker asked for nominations for President.

Dr. E. J. Goodwin, Missouri, nominated Dr. Jabez N. Jackson. Dr. Jackson's nomination was seconded by Dr. Ben R. McClellan, Ohio; Dr. Arthur W. Booth, New York; Dr. A. W. Hornbogen, Michigan; Dr. Donald Macrae, Jr., Iowa; Dr. Walter F. Donaldson, Pennsylvania, and Dr. E. P. Sloan, Illinois.

Dr. Jabez N. Jackson was then unanimously elected, and the Speaker declared that he had been chosen President-Elect of the Association by the unanimous vote of the House of Delegates.

Nominations for Vice President were declared by the Speaker to be in order.

Dr. E. C. Ellett, Tennessee, nominated Dr. John O. McReynolds, Dallas, Texas.

Dr. Albert Soiland, California, nominated Dr. C. M. Rosser, Dallas, Texas.

Dr. A. T. McCormack, Kentucky, seconded the nomination of Dr. John O. McReynolds.

Dr. Thomas C. Chalmers, New York, and Dr. S. W. Welch, Alabama, seconded the nomination of Dr. Rosser.

The Speaker appointed as Tellers Dr. Albert Soiland, California; Dr. T. O. Freeman, Illinois; Dr. Carl F. Moll, Michigan; Dr. W. J. Ferguson, Missouri, and Dr. Harry de Vighne, Alaska.

Of the votes cast, Dr. McReynolds received 74 and Dr. Rosser, 55. The Speaker declared that Dr. McReynolds had received a majority of the votes cast and had been elected Vice President.

Presentation of President-Elect Jabez N. Jackson

The Speaker introduced the President-Elect, Dr. Jabez N. Jackson, who addressed the House as follows:

Mr. Speaker and Fellows of the House of Delegates:

From the bottom of my heart, with feelings which words cannot express, I wish to thank you for this high honor. I,

like many of you, was born into medicine, as my father and two of my uncles were doctors before me. I started to attend medical society meetings and to become a member of the profession, as a matter of fact, before I even entered on the study of medicine.

The first meeting of the American Medical Association which I had the privilege of attending was at Newport with my father, at which time he was honored by election as First Vice President. He died at that time.

As a youngster, as soon as I was out of school I became a member of my local society, and since that time I have always worked actively in medical society affairs. In fact, I am one of those who firmly feel that institutions are worth more than individuals, and that any man who is worthy of membership in the grand profession of medicine should be one who thinks more of his profession as a whole than of his own individual ambitions or interests. So it comes to me, therefore, with great pleasure today to realize that my friends have honored me with this position.

I would be possessed of more vanity than I can summon if I accepted this as an expression of my individual strength. I accept it instead as a representative of that great imperial territory known as the Southwest, because it has been my friends in the Southwest who have believed in me and who have put my name up for your endorsement today. Yet at the same time, while appreciating the compliment to the Southwest and particularly to my friends of the Southwest, I also say that I appreciate most heartily the enthusiasm with which the whole mass of the delegates have supported me. I thank you again for this high honor. (Applause.)

Election of Secretary

Dr. J. A. Witherspoon, Tennessee, nominated Dr. Olin West for Secretary.

Dr. A. T. McCormack, Kentucky, seconded the nomination.

The Speaker announced the unanimous election of Dr. Olin West.

Election of Treasurer

Dr. J. H. Walsh, secretary of the Board of Trustees, stated that the Board of Trustees unanimously nominated Dr. Austin A. Hayden, Chicago, for Treasurer of the Association to succeed himself.

The Speaker announced the unanimous election of Dr. Austin A. Hayden.

Election of Speaker of the House of Delegates

The Vice Speaker was called to the Chair and declared that nominations were in order for Speaker of the House of Delegates.

Dr. E. Eliot Harris, New York, nominated Dr. Frederick C. Warnshuis.

Dr. S. W. Welch, Alabama, Dr. J. A. Witherspoon, Tennessee, and Dr. Carl F. Moll, Michigan, seconded the nomination.

Dr. Frederick C. Warnshuis was elected Speaker of the House of Delegates by unanimous vote.

Dr. Warnshuis resumed the Chair.

Election of a Vice Speaker

Dr. F. W. Cregor, Indiana, nominated Dr. Albert E. Bulson, Jr., Indiana, for Vice Speaker of the House of Delegates.

Dr. E. Eliot Harris, New York, seconded the nomination.

Dr. A. T. McCormack, Kentucky, nominated Dr. H. P. Linsz, West Virginia.

Dr. C. J. Whalen, Illinois, seconded the nomination of Dr. Bulson.

Dr. C. S. Gorsline, Michigan, seconded the nomination of Dr. Linsz.

Dr. Victor G. Vecki, California, seconded the nomination of Dr. Bulson.

Dr. E. C. Thrash, Georgia, nominated Dr. Allen H. Bunce, Georgia.

Nominations were closed, and Dr. Bunce was elected Vice Speaker of the House.

Election of Trustees

Dr. William Gerry Morgan, District of Columbia, nominated Dr. Charles W. Richardson to succeed himself.

Dr. A. T. McCormack, Kentucky, and Dr. Walter F. Donaldson, Pennsylvania, seconded the nomination.

The Speaker declared Dr. Charles W. Richardson elected unanimously.

As Trustee to succeed Dr. Joseph A. Pettit, Portland, Ore., Dr. Victor G. Vecki, California, nominated Dr. Ray Lyman Wilbur, California.

Dr. William Kuykendall, Oregon, nominated Dr. Joseph A. Pettit, Oregon, to succeed himself.

Dr. A. W. Hornbogen, Michigan, seconded the nomination of Dr. Pettit.

Dr. F. B. Lund, Massachusetts, Dr. Joseph F. Smith, Wisconsin, Dr. William H. Mayer, Pennsylvania, and Dr. Bertram L. Bryant, Maine, seconded the nomination of Dr. Wilbur.

Dr. Harry de Vighne, Alaska, seconded the nomination of Dr. Pettit.

Dr. E. C. Thrash, Georgia, Dr. George Blumer, Connecticut, and Dr. Arthur W. Booth, New York, seconded the nomination of Dr. Wilbur.

Dr. A. T. McCormack, Kentucky, seconded the nomination of Dr. Pettit.

Dr. A. D. Dunn, Nebraska, seconded the nomination of Dr. Wilbur.

Dr. H. A. Miller, New Mexico, and Dr. H. P. Linsz, West Virginia, seconded the nomination of Dr. Pettit.

Dr. E. M. Neher, Utah, endorsed Dr. Pettit.

Nominations were closed. Of 119 votes cast, 59 were for Dr. Wilbur, and 60 for Dr. Pettit.

The Speaker declared Dr. Pettit elected to succeed himself as a member of the Board of Trustees.

For Trustee to succeed J. H. J. Upham, Columbus, Ohio, Dr. George Edward Follansbee, Ohio, nominated Dr. J. H. J. Upham, Ohio.

Dr. Thomas C. Chalmers, New York, Dr. D. E. Sullivan, New Hampshire, Dr. Samuel P. Mengel, Pennsylvania, Dr. F. B. Lund, Massachusetts, Dr. Charles E. Humiston, Illinois, and Dr. Arthur W. Booth, New York, seconded the nomination of Dr. Upham.

The motion to close the nominations was seconded and carried, and Dr. J. H. J. Upham, Ohio, was unanimously elected as Trustee.

For Trustee to fill the unexpired term of Thomas McDavitt, Dr. H. M. Brown, Wisconsin, nominated Dr. Rock Sleyster, Wisconsin.

Dr. J. D. Brook, Michigan, Dr. J. L. Rothrock, Minnesota, and Dr. S. W. Welch, Alabama, seconded the nomination of Dr. Sleyster.

The Speaker announced the unanimous election of Dr. Sleyster to fill the unexpired term of Dr. Thomas McDavitt.

The Speaker announced that by the resolution or expression of sentiment of the House, the Trustee receiving the highest number of votes should serve for the period of five years. Two of the newly elected Trustees had received 138 votes each, Dr. Upham and Dr. Richardson. Dr. Upham, in view of the years of experience of Dr. Richardson, withdrew his name for the five-year term, and the Speaker declared Dr. Richardson the Trustee for a term of five years.

Nomination for Standing Committees

President Wendell C. Phillips presented to the House the following nominations to standing committees:

Judicial Council: Dr. J. N. Hall, Denver, to succeed himself.

Council on Medical Education and Hospitals: Dr. S. W. Welch, Alabama, to succeed himself.

Council on Scientific Assembly: Dr. John E. Lane, Connecticut, to succeed himself.

On motion of Dr. A. T. McCormack, Kentucky, regularly seconded and carried, the nominations were confirmed.

Election of Honorary, Affiliate and Associate Fellows

The Secretary read the following nominations for Associate and Affiliate Fellowship, all of which were confirmed by the House:

The Judicial Council nominated the following:

AMERICAN MEDICAL MISSIONARIES

Byram, Roy M., Kanghei, Korea.
Dunlap, R. W., Chefoo, Shantung, China.
Ewers, E. M., Weihsien, China.
Freas, Howard M., Banza, Manteke, Belgian Congo.
Griggs, Donald E., Nanking, China.
Hoyt, Hubbard S., Taikyu, Chosen, Japan.
Huffman, L. E., Pauri, Garhwal, India.
Lewis, Stephen C., Chenchow, China.
Meade, Richard H., Jr., Anking, China.
Morris, H. H., Shanghai, China.
Oechli, Waldo R., Taianfu, Shangtung, China.
Peterson, R. A., Nanking, China.
Southworth, J. D., Tennoji Ku, Osaka, Japan.
Taylor, Harry B., Anking, China.
Teusler, Rudolph B., Tokyo, Japan.
Wanless, W. J., Miraj, India.
Ward, Mark H., Boston, Mass.
Watson, Percy T., Shansi, China.
Webb, Adin H., Chengtu, West China.

APPLICANT LIVING IN ADJACENT COUNTRY

Dunlop, F. C., Vancouver, British Columbia, Canada.

The following nominations for Associate Fellowship were submitted by the sections named:

SECTION ON PHARMACOLOGY AND THERAPEUTICS

De Eds, Floyd, San Francisco.
Young, Albert Gaylord, Ann Arbor, Mich.
Tatum, Arthur L., Chicago.

SECTION ON PATHOLOGY AND PHYSIOLOGY

Cope, Otis Merriam, Omaha.
Lewis, Robert C., Denver.
Reed, C. I., Dallas, Texas.
Rogers, Fred Terry, Dallas, Texas.
Steenbock, Henry, Madison, Wis.
Turley, Louis A., Norman, Okla.
Woods, Ozra T., Dallas, Texas.
B. C. H. Harvey, Chicago.
Roger Sanford Hubbard, Clifton Springs, N. Y.

SECTION ON PREVENTIVE AND INDUSTRIAL MEDICINE AND PUBLIC HEALTH

Carter, William S., New York.
Russell, Paul F., Malacca, Straits Settlements.
Turner, Clair E., Boston.

AFFILIATE FELLOWS

Wesseler, F. W., St. Louis.
Brown, Tinsley, Hamilton, Mo.

Place of 1927 Annual Session

Dr. William Gerry Morgan, District of Columbia, nominated Washington, D. C., and read the following invitation:

"The Medical Society of the District of Columbia invites you to hold the Seventy-Eighth Annual Session in Washington, D. C., the capital city of the nation. Our delegate, Dr. William Gerry Morgan, has been instructed to present this invitation at the Session of the House of Delegates, April 19, in Dallas, Texas."

Dr. Albert Soiland, California, seconded the motion to go to Washington.

Dr. Charles W. Richardson, Washington, D. C., seconded Washington and spoke in its favor.

Dr. Peter W. Tomlinson, Delaware, seconded Washington.

Dr. M. A. Tate, Ohio, nominated Cincinnati.

Dr. E. Eliot Harris, New York, seconded the nomination of Washington.

Dr. George Edward Follansbee, Ohio, seconded the nomination of Cincinnati.

Dr. J. L. Rothrock, Minnesota, nominated St. Paul.

Dr. H. M. Johnson, Minnesota, seconded the nomination of St. Paul.

The Speaker anounced the selection of Washington, D. C., as the next meeting place.

Dr. Holman Taylor read the supplementary report of the Reference Committee on Reports of Board of Trustees and Secretary:

Supplementary Report of Reference Committee on Reports of Board of Trustees and Secretary

TRUSTEES

We consider here several matters not referred to in our previous report. It is not feasible to present the thorough digest which the importance of the report of the Board of Trustees deserves. The report itself should by all means be carefully studied by each member of the House of Delegates.

This seems to have been a prosperous year for the Association, and our committee feels that the Board of Trustees deserves the appreciation of this House and of the Association for its successful endeavors, and for its business acumen. We note that at the close of the fiscal year the Association had gained for its reserve the sum of $45,121.96. It will be necessary to study the report of the auditor (Hand Book, p. 89) in order to appreciate fully the financial status of the Association, which we trust at least the members of the House of Delegates will do.

The increase in Followship and outside subscriptions to THE JOURNAL, and in its advertising constitute indisputable evidence of prosperity. It will be borne in mind that the advertising income of THE JOURNAL could be greatly increased by even slight modifications of the high ethical standards at present in force. It will also be borne in mind that the American Medical Association assumes its membership automatically, but must depend on the appreciation of the individual for its Fellowship.

The value of the Spanish edition of THE JOURNAL has been thoroughly established, and it is the opinion of our committee that its publication should be continued. It will be noted that the net loss in the publication of this journal was $11,740.10, a decrease in loss of $1,161.95. It will be noted, further, that the Rockefeller Foundation bears half this loss.

The special journals all show an increase in subscription, except for one that was established during the year, and four of them have been published at a profit of from two to five thousand dollars each. These several enterprises would seem to be worth while.

The net cost of the Quarterly Cumulative Index was $12,678.53. The value of this publication warrants this expenditure, we are sure.

We are pleased to note that the Directory begins to show a gain on the credit side of the ledger, even though the gain is apparent rather than actual, as stated by the Trustees. It might be observed in this connection that most of the overhead utilized by this publication and not charged to it would exist, regardless of this special demand.

The increase in circulation and decrease in net cost of *Hygeia* is noted with much satisfaction. It is more than ever clear that this publication will eventually be the success we have hoped for in the most important field of health education. Every member of this great Association should be made to feel his responsibility for the circulation of *Hygeia*. It would be in the homes of every patient of every reputable physician in this country if this were so.

The Council on Pharmacy and Chemistry continues to merit the approbation of the medical profession for the great service it renders the cause of scientific medicine. We should appreciate, perhaps more than we do, the valuable services, without remuneration, rendered by the members of this council. We feel that the recently noticeable reduction in quackery is largely due to the scientific work of the Council on Pharmacy and Chemistry.

The development of the scientific exhibits and the motion picture theater factors in the scientific instruction work of the Association appeals to us as being of large importance.

The plan of medical relief in disaster advanced by a special committee, composed of Drs. William Allen Pusey, W. D. Haggard and Wendell C. Phillips, which will be found on page 103 of the Hand Book, and which has been fully endorsed by the Trustees, should be adopted. On representations made by the aforesaid committee, it is recommended that the designation of this plan be changed from "Disaster Relief" to "Medical Relief in Disaster." This is an important matter, and the plan has evidently been carefully worked out. It is provided that the general manager of the American Medical Association shall be the national director of medical relief in

any large disaster, and the presidents of state societies shall be liaison officers between the national headquarters of the Association, state headquarters and component county societies. Presidents of district and component county societies shall be local directors, but may deputize other members of the profession to serve in their stead. It might be well to alter the plan set out by the committee so as to permit also the executive secretaries of state medical associations instead of the presidents, at the option of the national director of medical relief in disaster, to serve as state directors.

Of special interest is the discussion of "Narcotics" to be found on page 69 of the Hand Book. The activities of the Trustees in avoiding the very aggravating requirement that physicians prescribing narcotics register also as dispensers of narcotics constitute a service to be appreciated.

The Board of Trustees is to be commended for the spirit shown in supporting the decision of the House of Delegates to disapprove of the provisions of the World War Veterans' Act of 1924, which law granted hospitalization to all veterans, regardless of financial need, ailment or connection with war service. We recommend continuation of their activities in this connection, in view of pending federal legislation looking to the extension of the privilege of outpatient treatment under the same conditions.

The approval of certain chiropractic schools by the United States Department of Labor, as per discussion beginning on page 74 of the Hand Book, is to be condemned as encouraging quackery, and the Board of Trustees should see that every proper effort is made to have such approvals canceled.

We consider the matter of "Cults in Hospitals" to be rather local than general. The Board of Trustees should render to state associations such assistance in solving problems of this sort as may seem agreeable and advisable.

The Board of Trustees has promptly and vigorously carried out the purpose of the resolution adopted by the House of Delegates last year, in regard to the publication of reports, resolutions and the like, pertaining to policies of the Association, thirty days in advance of the annual meeting. It has the appreciation of the House of Delegates for this service.

The very prompt establishment of the Council on Physical Therapy, with such a high order of personnel and on a permanent basis, is another highly appreciated service of the Board of Trustees. We feel that the personnel of this council and the rules adopted for its guidance will insure results of the greatest value.

Finally, our committee appreciates the enormousness of the work of the Board of Trustees and the completeness of its report. And in this connection, and for this reason, we feel that it would not be amiss to urge that the House of Delegates select the personnel of the Board with the utmost care. The management of such a great enterprise as the American Medical Association requires, in addition to other qualities, business ability of the highest order.

SECRETARY

The Secretary has submitted a most satisfactory report, from the standpoint of subjects treated and the manner of their treatment. It does not appear to our committee necessary or desirable to go greatly into detail in its consideration. It is believed that each member of the House of Delegates has carefully read this report, and if there are any who have not, it is respectfully urged that they do so at once. It is also urged and advised that this report be brought to the attention of constituent state associations and component county societies.

The largest membership in the history of the Association is reported. There are now 91,792 members, which makes the Association the largest of its kind in the world. In this connection should be noted the complaint of the Secretary that the carelessness of members of county societies, at which point lies the source of membership of the American Medical Association, is costing the Association good money. It is estimated that it costs not less than $1 per member to reinstate those who have allowed their memberships to lapse. This matter should be brought forcefully to the attention of component county societies, through their respective state associations.

The healthy increase in fellowship noted by the Secretary is an indication of a wholesome growth of appreciation of the national body, and we are hopeful that the growth will continue as rapidly as conditions will permit.

There are now 58,681 Fellows, an increase of 2,493 for the year. It will be remembered that our membership is coincident with the membership of component county societies, but our Fellowship is individually and separately acquired. The value of Fellowship is not by any means exclusively to the individual. The educational influence of THE JOURNAL, alone, is worth much to the group. Our basic purpose is a better educated and a more effective medical profession, and any factor that serves this purpose is worth while.

The county society should be the fountain head of scientific work. The secretary very properly points to a danger in this connection. The scientific program of a county society should accomplish two distinct things, instruct the membership and develop in members the scientific ability and the ability to express themselves. If these programs do not bring to the society those who are qualified to speak and able to speak, instruction will suffer. On the other hand, if this is done to the exclusion of discussions by members generally, there will be no development. State associations and county societies will do well to give special study to this problem.

The component county society constitutes the basis of the American Medical Association from every point of view. If the American Medical Association would succeed in the highest degree, it must develop the county societies to the highest degree, and require of them that they function, as it was originally intended that they should function. It is sometimes expedient to shortcircuit the county society, but if this is done to any considerable extent the whole organization will pay a penalty that might and should be avoided.

We feel that the annual conference of secretaries of constituent state associations is proving of great value. We trust that the Board of Trustees will continue to foster this practice. One of the most difficult tasks confronting our national organization is that of coordinating the activities of constituent state associations and bringing about the maximum uniformity of laws and regulations for their government. There can be no better agency for this purpose than the annual conference of state secretaries.

Respectfully submitted.

E. ELIOT HARRIS, Chairman,
C. J. WHALEN,
HOLMAN TAYLOR,
E. J. GOODWIN,
A. H. BUNCE.

On motion of Dr. Taylor, seconded by Dr. Albert Soiland, California, the report of the Reference Committee on Reports of Board of Trustees and Secretary was adopted.

Presentation of Distinguished Guests

Dr. J. O. McReynolds presented the director of the National University of Mexico, Dr. Alfonso Pruneda, and his distinguished colleagues of the Mexican Republic.

Dr. Alfonso Pruneda said:

Mr. Speaker and Gentlemen of the House of Delegates:

The Mexican delegation deeply appreciates your hospitality and begs to convey its greetings to you. We have been interested in the wonderful work done by the American Medical Association. We sincerely appreciate THE JOURNAL, and the contribution of this Association not alone to medical science, but to medical ethics and to social and human welfare. We hope that this personal acquaintance may help us more and more to form a closer bond with the people of the States, and especially the medical men of the country. [Applause.]

In behalf of the Association, the Speaker extended greetings to Prof. J. B. Collip, Edmonton, Alta., who represented the Canadian Medical Association, and Chester A. Duncan, dean of Pharmacy of Baylor University, delegated to represent the American Pharmaceutical Association.

Supplementary Report of Board of Trustees

Dr. Edward B. Heckel, Board of Trustees, read a supplementary report from the Board with respect to the letter from

the National Catholic Welfare Conference, which had been referred to the Board. The Board recommended that in the absence of data based on adequate scientific investigation, the House of Delegates express no opinion on pending legislation.

Dr. A. D. Dunn, Nebraska, moved the adoption of the report of the Board of Trustees.

The motion was seconded by Dr. John P. DeWitt, Ohio.

Dr. Southgate Leigh, Virginia, moved that it be referred back to the Board of Trustees with power to act.

The motion was seconded by Dr. Arthur W. Booth, New York.

The Speaker announced that the vote to refer the matter back to the Board of Trustees had carried.

Supplementary Report of Reference Committee on Reports of Officers

Dr. Arthur W. Booth, New York, read the supplementary report of the Reference Committee on Reports of Officers:

1. Your Committee begs to report that it heartily endorses the suggestions and recommendations of President Haggard relative to the proposed plans for extending the idea of periodic health examinations.

Your committee feels that the efficiency of this general movement will depend largely on the care exercised in preparing the literature to be sent out by the various county societies to their members and the lay public. To that end, we suggest that the Trustees should be requested to prepare sets of carefully worded letters as approved models or forms.

2. In reviewing the address of President-Elect Phillips, we found many constructive suggestions designed to bring the general public into intelligent cooperation with organized medicine. We approve of Dr. Phillips' suggestions that the House of Delegates urge on every practitioner of medicine his personal duty in this matter, and especially the necessity for an intensive survey to determine the most efficient methods of promoting public health education and impressing the public with the necessity of such. We therefore offer the following resolution:

Resolved, That the House of Delegates requests the Board of Trustees to appropriate sufficient funds to defray the expenses of a survey, the purpose of which shall be an investigation of ways and means to best promote public health education.

3. We heartily approve of the Speaker's comments touching on state medicine and contract practice.

4. As regards the subject of selecting a place for the annual session, we agree thoroughly with the Speaker that there are many questions involved in the selection of a suitable place for our annual sessions, and that the Board of Trustees is in a position to obtain more definite and satisfactory data than the individual members of the House of Delegates. We feel, however, that, within certain limits, the members of the House of Delegates ought to have a voice in the designation. We would therefore recommend that the Board of Trustees be requested to suggest, at the first meeting of the annual session, not less than three suitable locations, and that from these, the House of Delegates shall make the final choice by vote.

Respectfully submitted.

ALBERT E. BULSON, JR.
J. NORMAN HENRY.
WILLIAM GERRY MORGAN.
VICTOR G. VECKI.
ARTHUR W. BOOTH, Chairman.

Dr. Albert Soiland, California, moved the adpotion of the report as a whole.

The motion was seconded by Dr. Albert E. Bulson, Jr., Indiana, and carried.

Supplementary Report of the Committee on Legislation and Public Relations

Dr. H. M. Brown, Wisconsin, stated that the resolution of expert opinion evidence was referred back to the committee with an addendum for its consideration and for the introduction of new evidence. That new evidence in the matter has been heard and carefully analyzed by your committee, and following will be the report of the committee as to the motion brought before the House at the first session. That motion as amended now reads as follows. Dr. Brown read the resolution and a telegram from the professor of criminal law, University of Pennsylvania:

WHEREAS, The present court procedure in expert opinion evidence in both civil and criminal cases has in many instances brought public criticism and disgrace on both the legal and the medical professions; and

WHEREAS, The present procedure in many cases is believed to defeat the administration of justice; and

WHEREAS, An effort is being made in many states by the bar associations and medical societies of those states to correct such maladministration of justice, and to relieve the legal and medical professions of the public criticism now received; and

WHEREAS, The American Bar Association is actively pursuing the above laudable effort; therefore, be it

Resolved, By the House of Delegates of the American Medical Association that it recognizes the urgent need for such remedial legislation and such change in court procedure as will correct the abuse of expert opinion evidence; approves the efforts of the various bar and medical associations; and further be it

Resolved, That the House of Delegates endorses the principle that in civic and criminal cases the court may appoint expert medical witnesses, who shall be paid out of public funds, and who may furnish a written report; and that the American Medical Association offers its cooperation by such means as lie in its power to promote such legislation as will be mutually satisfactory to the medical and legal professions toward the correction of the present unsatisfactory procedure of presenting expert opinion evidence, and the Board of Trustees is hereby requested to use the facilities of this organization in such a way as to give effect to the sentiments expressed in this resolution.

And further that the House of Delegates endorses certain principles approved by the Committee on Jurisprudence and Legal Reform of the American Bar Association, and by the American Institute of Criminal Law and Criminology as follows:

That in civil and criminal cases where the issue of insanity is raised, expert medical witnesses may be appointed by the court, and paid from public funds, and that such witnesses may present a written report.

Be it further

Resolved, That a copy of this resolution be sent to the American Bar Association.

Respectfully submitted.

HORACE M. BROWN, Chairman.

TELEGRAM

April 21, 1926.

Dr. J. Norman Henry, Dallas, Texas.

Testimony bill approved by Committee on Jurisprudence and Law Reform of American Bar Association 1915, by American Institute of Criminal Law and Criminology 1914, by eleventh annual conference of American Medical Association on Medical Legislation called by Council on Health and Public Instruction, Chicago, Feb. 15, 1915. These approvals verified.

E. R. KEEDY, Philadelphia.

Professor of criminal law, University of Pennsylvania; chairman of committee which drafted those principles.

Dr. H. M. Brown, Wisconsin, moved the adoption of the resolution. The motion was seconded by Dr. Arthur J. Bedell, New York, and carried.

Dr. Brown begged the privilege of presenting the copy of the article referred to in the report.

The Speaker stated that it would be attached as addenda to the complete report.

Dr. Brown had a further resolution referring to H. R. 10125, a bill in Congress endeavoring to bring about the same general class of changes. Dr. Brown read the resolution:

Resolved, That the House of Delegates of the American Medical Association endorse the principles embodied in H. R. 10125, a bill to provide for the coordination of the public health activities of the government and for the other purposes.

On motion by Dr. Brown, seconded by Dr. Arthur J. Bedell, New York, the resolution was adopted.

Dr. Brown moved the adoption of the report as a whole. The motion was seconded and carried.

Supplementary Report of Reference Committee on Hygiene and Public Health

Dr. C. E. Mongan, Massachusetts, Chairman of the reference committee, read the report, recommending that the committee to study cosmetics be continued, and moved the adoption of the report. The motion was seconded by Dr. J. W. Van Derslice, Illinois, and carried.

Supplementary Report of Reference Committee on Amendments to the Constitution and By-Laws

Dr. J. W. Van Derslice, Illinois, stated that the amendment submitted by Dr. Eagleton, New Jersey, referring to an ad interim meeting, was recommended to be not adopted, and so moved.

The motion was seconded by Dr. C. E. Mongan, Massachusetts, and carried.

The committee recommended that the amendment offered by the Delegate from Missouri, which would place on the free list of THE JOURNAL the affiliate members of the Association, be not adopted. Dr. Van Derslice moved the adoption of that portion of the committee's report. The motion was seconded by Dr. Albert E. Bulson, Jr., Indiana, and carried.

The supplementary report of the Judicial Council in supporting an amendment to the Constitution was submitted, and the committee recommends that we adopt this amendment to the By-Laws. Dr. Van Derslice read the portion of the report of the Judicial Council referred to:

Membership in the American Medical Association is regularly obtained through membership in a constituent association and in one of its component county societies. Should a qualified physician, however, be refused membership in his component county society, he may appeal his case to the board of censors or proper tribunal of the state association in the manner provided for in the by-laws of the particular county society and state association. Should the appeal tribunal, after a careful, fair and unbiased hearing of the case, find the appellant to be worthy of membership in the organization, and should the tribunal after reasonable efforts fail to reconcile the county society to the acceptance of the appellant as a member of the said society, the house of delegates of the constituent state association, on the recommendation of the appeal tribunal, may elect the said appellant a member of the state association, the appellant thereby becoming a member of the American Medical Association.

Should any member of the American Medical Association be deemed by the Judicial Council to be unworthy of membership in the said Association, it shall be the duty of the Secretary, on the recommendation of the Judicial Council, to notify the secretary of the said member's constituent association and he in turn the secretary of the said member's component society of the facts in the case; and should the state association and the local society fail to take proper action in the premises, the House of Delegates, on the recommendation of the Judicial Council, may expel the said member from the American Medical Association.

Dr. Van Derslice moved the adoption of the amendment. Seconded by Dr. E. C. Thrash, Georgia.

Dr. H. M. Brown, Wisconsin, moved that the amendment be laid on the table. The motion to table was seconded by Dr. Thomas C. Chalmers, New York. The vote was 26 in favor of tabling and 26 against. The Speaker declared the motion to lay on the table carried.

Dr. J. W. Van Derslice, Illinois, moved that the report of the committee as a whole be adopted. The motion was seconded by Dr. Bedell, New York.

The Speaker explained that the question was on the adoption of the report as a whole, with the exception of the latter part, which was laid on the table and not adopted. The motion to adopt the report carried.

The Speaker presented for consideration a question of program of the House, having noticed that each year during the day of the last session after the election has been completed a large number of delegates depart. While a quorum is present, there is not as full a representation of delegates as would be desirable. It would seem, therefore, somewhat advisable that some procedure be given notice of at this time for enaction next year that will provide for the receipt of the reference committee reports before the House proceeds to the election. That can be done on Tuesday afternoon or Wednesday morning, but is an important matter in the affairs of the Association. With all due respect to the members who are diligent in attending to their duty, somebody can ride through a pretty dangerous piece of legislation at the last session of our House. The Speaker suggested that some member rise and give notice that he is going to introduce an amendment to either the Constitution or the By-Laws next year so we can act on that.

Dr. H. M. Brown, Wisconsin, undertook the responsibility and gave such notice.

Unfinished Business

Dr. O. S. Wightman, New York, read two telegrams, one signed by D. S. Dougherty, secretary of the Medical Society of the State of New York, and the other by Dr. Henry L. K. Shaw, Chairman of the Committee on Legislation. They read as follows:

Medical Practice Act passed the Senate, vote 35 to 12.

Dr. Wightman continued that Governor Smith had already said that he would sign the bill—an epoch in medical legislation.

Dr. Wightman offered the following resolution:

The medical profession of the United States as represented by the American Medical Association in convention at Dallas, Texas, congratulates the governor of the state of New York in his demand for higher standards of medical education and the protection of the health of the citizens of the empire state so well outlined in his legislative message on assuming office. We further pray that there may be no deviation from this course and ask that full consummation be realized by affixing his signature approving the medical practice act recently passed by the legislature of the state of New York.

Dr. T. C. Chalmers, New York, said: This does what to my mind is the greatest thing that has been done yet in medical legislation; it creates a grievance committee based on the grievance committee of the Bar Association, which makes instead of twelve jurors a committee of grievance composed of ten doctors of conspicuous medical standing. I trust this endorsement will prevail.

President Wendell C. Phillips said: I feel that at last the medical profession of the state has been able to convince legislators that it is their duty to look after the public health. We have developed enough knowledge of public health affairs in our legislature so they are doing it for their own protection, and that is the kind of a bill we passed. I sincerely hope it will be adopted.

A motion was made by Dr. O. S. Wightman, New York, seconded by Dr. John P. DeWitt, Ohio, that the resolution be adopted.

The Speaker announced that the resolution was unanimously adopted.

The Secretary read the following resolution from the Section on Preventive and Industrial Medicine and Public Health:

Resolved, That the section on Preventive and Industrial Medicine and Public Health approves the following resolution and urges its adoption by the House of Delegates:

WHEREAS, The registration of births and deaths at the time of their occurrence furnishes official record information of much value to individuals; and

WHEREAS, The registration of deaths, with information on certain points, is essential to the progress of medical and sanitary science in preventing and restricting disease and in devising and applying remedial agencies; and

WHEREAS, All the principal countries of the civilized world recognize the necessity for such registration and enforce the same by general laws; and

WHEREAS, There are still seven states which either have defective death registration laws or have death registration less than 90 per cent complete; and

WHEREAS, There are still fifteen states which either have defective birth registration laws or have birth registration less than 90 per cent complete; and

WHEREAS, After a twenty-five year campaign to secure nation-wide registration of births and deaths, a drive is now on to reach this goal before 1930; now, therefore, be it

Resolved, By the House of Delegates of the American Medical Association in annual meeting assembled, that the American Medical Association hereby expresses approval of this movement and requests the favorable consideration and action of the state authorities, to the end that good state laws for the registration of births and deaths may be enforced and that national registration of births and deaths may become a reality before 1930.

Dr. C. E. Mongan, Massachusetts, moved that the resolution be adopted. The motion was seconded by Dr. Albert E. Bulson, Jr., Indiana, and carried.

The Secretary read the following resolution from the Section on Laryngology, Otology and Rhinology:

Recognizing the fact that the most effective means for the prevention of deafness consists in the early detection of hearing impairment, thereby giving opportunity for the prompt removal of contributing causes, and believing it to be one of the important functions of our public school authorities to safeguard the integrity of the special sense organs as well as the general health of the school child; be it

Resolved, By the Section on Laryngology, Otology and Rhinology of the American Medical Association that it heartily favors the provision by our public school authorities for regular, periodic examinations of the hearing acuity of all public school children, such examinations to be adequate to detect even slight degrees of hearing loss; and be it further

Resolved, That this resolution be referred to the House of Delegates of the American Medical Association for its endorsement.

Dr. E. C. Thrash, Georgia, moved that the resolution be adopted. The motion was seconded by Dr. S. M. Blackshear, Louisiana, and carried.

Resolution of Thanks to Dallas

Dr. J. W. Van Derslice, Illinois, introduced the following resolution:

Resolved, That the House of Delegates on behalf of the members of the American Medical Association extend our hearty thanks and appreciation to the citizens of Dallas, the press of the city, the Dallas County Medical Society, the Texas State Medical Society, to Dr. Cary as chairman of the Local Committee of Arrangements, and any and other person who has contributed to the welfare and the interest and the success of this session that we have just completed.

Dr. Van Derslice moved the adoption of the resolution. The motion was seconded by several Delegates and adopted unanimously.

Death of Dr. Francis

Dr. Albert E. Bulson, Jr., Indiana, called attention to the fact that Dr. L. M. Francis, of Buffalo, a prominent member of the Association, had dropped dead at noon. He had been a member of the Association many years and had served in the House of Delegates. It was moved, seconded and carried that a telegram of condolence be sent to the relatives, and especially to Mrs. Francis.

The House of Delegates adjourned sine die at 5:25 p. m.

THE SCIENTIFIC EXHIBIT

Those who attended the Scientific Exhibit at Dallas were impressed by the scientific character of the exhibits, and the unusual amount of investigative work. The personal demonstrations by leaders in research were an outstanding feature. This year a number of papers in the sections were correlated with scientific exhibits, and notice of such correlation was published in the official program; this permitted more detailed discussion at the booths with the particular exhibit serving as a means of illustration.

The Section on Dermatology and Syphilology had another of its attractive exhibits, this time dealing with cancer. The committee in charge, composed of Drs. I. L. McGlasson, E. D. Crutchfield and Fred Weidman, deserve praise for the systematic presentation of the subject by the investigators who collaborated. Two special exhibits, authorized by the Board of Trustees, were always the centers of groups of interested visitors. The fresh pathologic exhibit received surgical and necropsy material from Dallas, supplemented by material from other cities, and by specimens received from the packing house at Fort Worth; the material was admirably demonstrated by Drs. George T. Caldwell and Ozro T. Woods. The exhibit on immunology was particularly instructive and the demonstrations were of practical, everyday interest. School children were present twice each day for demonstration of Schick and Dick tests. The committee in charge was composed of Drs. H. R. Wahl, Esmond R. Long, R. W. Lamson, J. H. Black and O. B. Nesbit. A coordinate exhibit on smallpox vaccination was given under the auspices of the United States Public Health Service by Dr. J. P. Leake. At stated intervals Dr. Leake showed the various types of takes, 120 students having been vaccinated a number of days previous to the opening of the session. Physicians also took advantage of the immunologic and smallpox demonstrations.

Except in the educational classification (where the work of organizations is exhibited), the material was presented in the name of the individual and not in the name of the institution where it was done, though the name of the institution appeared as part of the address. In line with this, the awards were made to individuals.

The arrangement of the exhibit was ideal, with spacious avenues and interesting aisles. The space utilized was almost 25 per cent larger than at Atlantic City. The total number of exhibits was seventy-seven, and the number of participants, 145.

REPORT OF COMMITTEE ON AWARDS

SCIENTIFIC EXHIBIT

The Committee on Awards reports:

The gold medal to Aldo Castellani, Department of Tropical Medicine, School of Medicine, Tulane University of Louisiana, New Orleans, for an exhibit on some tropical mycoses and their causative agents. The award is based on the excellent original investigations in a comparatively unexplored field of medicine, and for the perfection of display.

The two silver medals are awarded to the following (alphabetically arranged):

F. W. Hartman, Adolph Bolliger and H. P. Doub, Detroit, for exhibit showing the development of a promising experimental method and studies of nephritis.

Francis Carter Wood, Institute of Cancer Research, Columbia University, New York, for the introduction of an experimental method and for studies of sarcoma, and for excellence of demonstration.

The bronze medals are awarded to the following (alphabetically arranged):

Montrose Burrows, Louis H. Jorstad, Charles Johnston, G. Payling Wright and Edwin C. Ernst, St. Louis, for work showing the relation of vitamins to cancer.

Russell L. Haden, University of Kansas, Kansas City, Kan., for bacteriologic study of periapical dental infections.

The committee also awards certificates of merit to:

Janet Caldwell and Ozro T. Woods, Baylor Hospital, Dallas, for demonstration of bacteriophage.

Herbert Fox, Philadelphia, for exhibit of cancer in wild animals.

Preston G. Hickey, University Hospital, Ann Arbor, for roentgen-ray studies of injected pathologic material.

Alexander Lambert, New York, and George Blumer, New Haven, Conn., for demonstration dealing with modern methods of heart study, particularly angina pectoris.

A. H. McIndoe and V. S. Counsellor, Mayo Clinic and Mayo Foundation, Rochester, for study and excellence of presentation of injection and corrosion specimens of the vascular radicles of the liver and biliary tract.

Arthur M. Yudkin, Yale University of Medicine, New Haven, Conn., for ocular disorders attributable to dietary deficiencies.

Honorable mention is given to the following (arranged alphabetically):

American Social Hygiene Association, New York, for exhibits illustrating the work of Drs. Brown and Pearce, Rockefeller Institute.

Vilray P. Blair, St. Louis, for corrections of single harelip.

Samuel Iglauer, George Benzing, Samuel Brown and H. Kennon Dunham, Cincinnati General Hospital, Cincinnati, and Warren C. Breidenbach, Dayton, Ohio, for injected iodized oil in the roentgen-ray diagnosis of tracheal and bronchopulmonary conditions.

I. P. Leake, United States Public Health Exhibit, Washington, for excellent demonstration of actual smallpox vaccination.

United States Bureau of Entomology, Dallas, for some insects and related forms which attack man.

F. B. Young and A. L. Cooper, Scottsbluff, Nebraska, for original investigations in fossil and prehistoric pathologic conditions.

The committee appreciates the work of the two special committees, that of the Committee on Immunology and the Committee on Fresh Pathology, and feels that these features, which are not open to awards, deserve special praise. The committee would like to see these exhibits continued for next year.

The committee commends the fact that legends have been carefully prepared for many exhibits, but suggests that the purpose of the exhibit with fully explanatory legends should be most carefully worked out in the case of all exhibits.

The committee desires to commend the general arrangement, neatness, lighting and freedom from confusion of the Scientific Exhibit, and recommends it as a model for future exhibits. The committee has been impressed by the fact that there have been competent demonstrators in charge of most of the exhibits.

ROGER MORRIS, Chairman.
BUNDY ALLEN.
R. G. HOSKINS.
W. L. MCBRIDE.
D. B. PHEMISTER.

THE MOTION PICTURE THEATER

The Motion Picture Theater, which is under the management of the Scientific Exhibit, was located in an improvised auditorium adjacent to the Scientific Exhibit. As has characterized this feature during the last four years, the theater was operated strictly on schedule from noon to 5:30 on Monday, from 9 to 5:30 on Tuesday, Wednesday and Thursday, and from 9 to 4 on Friday. Thirty-four speakers were scheduled for seventy-five periods. The talks, which were of practical interest, were exceedingly well attended, at times the seating capacity (800) being overtaxed. At 5:30 on Wednesday afternoon a film on periodic health examinations was shown to an invited group, the members of which later will be asked for advice concerning the undertaking of such a feature film by the American Medical Association. The film was generously lent to the American Medical Association through the courtesy of the New York Tuberculosis and Health Association, with the cooperation of Drs. Orrin Wightman and Alec Thomson.

REGISTRATION AT DALLAS

The total registration at the Dallas Session was 4,179. Below are given two summaries, one by sections and one by states:

REGISTRATION BY SECTIONS

Practice of Medicine	1,371
Surgery, General and Abdominal	814
Obstetrics, Gynecology and Abdominal Surgery	239
Ophthalmology	205
Laryngology, Otology and Rhinology	213
Diseases of Children	174
Pharmacology and Therapeutics	16
Pathology and Physiology	83
Nervous and Mental Diseases	97
Dermatology and Syphilology	86
Preventive and Industrial Medicine and Public Health	92
Urology	132
Orthopedic Surgery	70
Gastro-Enterology and Proctology	51
Radiology	136
Miscellaneous	400
Total	4,179

REGISTRATION BY STATES

Alabama	28	Nebraska	39
Arizona	10	New Hampshire	2
Arkansas	117	New Jersey	13
California	100	New Mexico	30
Colorado	89	New York	102
Connecticut	7	North Carolina	23
Delaware	3	North Dakota	4
District of Columbia	15	Ohio	94
Florida	9	Oklahoma	427
Georgia	20	Oregon	12
Idaho	6	Pennsylvania	83
Illinois	182	Rhode Island	1
Indiana	37	South Carolina	7
Iowa	45	South Dakota	3
Kansas	120	Tennessee	62
Kentucky	31	Texas	1,829
Louisiana	132	Utah	7
Maine	1	Vermont	1
Maryland	15	Virginia	28
Massachusetts	43	Washington	7
Michigan	54	West Virginia	4
Minnesota	60	Wisconsin	44
Mississippi	33	Wyoming	3
Missouri	171	Miscellaneous	25
Montana	1	Total	4,179

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, ETC.)

ALABAMA

Illegal Practitioners Convicted.—The Etowah County Medical Association recently instituted quo warranto proceedings against a "Dr." M. R. Ferguson who is said to have practiced without a license at Attalla. Convicted by a jury, he has appealed the case to the state supreme court, claiming, it is said, that he did not prescribe medicine. The Alabama law does not require for conviction, that an illegal practitioner treat a patient, as merely offering to treat patients subjects him to prosecution.——Chester V. Ross, chiropractor at Mobile, was convicted by a jury of practicing without a license and was fined $50, April 8, it is reported.

ARKANSAS

Health Officer Appointed.—Dr. William K. Murray, of Canton, Ohio, has been appointed health officer of Little Rock, effective, May 1, to succeed Dr. William L. Holt, resigned. Dr. Murray is said formerly to have been attached to the departments of health of Chicago and of Canton, and to have served overseas during the World War.

State Medical Meeting.—The fifty-first annual session of the Arkansas Medical Society will be at Hot Springs National Park, May 18-20, with headquarters at the New Arlington Hotel. Among the speakers at the public session, May 18, will be Dr. Margaret W. R. Koenig of the state board of health, and Mr. Eugene T. Lies, a representative of the Playground and Recreation Association of America. There will be a clinical session at the government bath house, and visits to the various bath houses. The president's reception and dance will be in the evening of the second day. Among the speakers at the scientific session will be Dr. Fred H. Albee, New York, whose subject will be "Rehabilitation Surgery."

COLORADO

Hospital News.—The new Boulder Community Hospital, which is nearing completion, has been completely financed by a bond issue of $40,000, and a subscription campaign, which raised $72,000.——The second unit of the Methodist Episcopal Sanatorium at Colorado Springs will be opened by May 15; it has a capacity of fifty-five beds.

Personal.—Dr. Leonhard Koeppe of Halle, Germany, recently conducted a course of study in Denver on "The Slit Lamp and the Corneal Microscope."——Dr. Thomas C. Taylor, Fort Collins, has been reappointed county health officer. ——Dr. Helen F. Craig Sullivan, for many years pathologist at the St. Joseph's Hospital, Denver, has resigned. ——Dr. Ralph K. Collins, Trinidad, has arrived in Constantinople, Turkey, to make a health survey on behalf of the Rockefeller Foundation; it is planned to send a number of Turkish physicians and nurses to the United States to study American health methods.

DISTRICT OF COLUMBIA

Medical Inspection in the Schools.—Efforts are being made by school officials and members of the board of education of the District of Columbia to have Congress enact legislation placing school medical inspection in the hands of the school authorities of the district instead of in the district health department. The school officials have not at any time complained of the work performed by the health officer, but they fear there may be serious limitations on this work because of the ruling referred to above. The Monday Evening Club, which is a civic organization, advocates a large medical inspection program in the schools and has made a survey of this work in the district schools as compared with schools of other cities throughout the country. According to Walter Hatch, chairman of the health committee of the club, the survey shows that Washington is far behind other cities in the work of medical inspection in the public schools.

Lack of Funds for Health Work.—Failure of the director of the budget to approve, and of Congress to appropriate, adequate funds for health work in the District of Columbia

was denounced by Health Officer, Dr. William C. Fowler, and others at the annual meeting of the Washington Council of Social Agencies at the Burlington Hotel, April 13. General criticism of health conditions in Washington was charged to the lack of funds by Dr. Victor C. Vaughan, chairman, Division of Medical Sciences, National Research Council. He gave statistics showing the death rate from various diseases, and emphasized that Washington is behind other cities in civic health activities. He pointed out that in 1925 the death rate from typhoid fever in Washington was more than five persons to 100,000 population, as compared with 1.5 for Norfolk, Va.; 3.3 for Wilmington, Del., and 3.6 for Baltimore. Dr. Vaughan said there is no prenatal clinic under government control; no maternity hospital under the control of the health officer, and no adequate supervision of preschool children. These and other conditions he laid to the lack of appropriations. James A. Tobey of the Institute for Government Research advocated the application of a standard to the district to determine what is wrong with the method of dealing with the health situation. Dr. Fowler explained the hopelessness of the health department functioning as it should in many cases as due to lack of funds. "We have asked for an appropriation of $25,000 to suppress any form of nuisances attributed to nonresidents here," he said, adding that the appropriation granted was only $2,000.

FLORIDA

Miscellaneous Items.—Dr. Simon E. Driskell, Jacksonville, has been appointed a member of the state board of medical examiners.——The Dade County Medical Society recently voted to raise its annual dues to $50.——A municipal hospital is being constructed for Delray to be made of several units, the first of which will cost $25,000.

State Medical Meeting.—The fifty-third annual meeting of the Florida Medical Association will be held in Gainesville, May 4-5. Registration will be conducted at the Elk's Club; the Alachua County Medical Society will give a smoker, Monday evening, May 3; a banquet and dance will be given Tuesday evening at the White House Hotel; automobile drives, bridge parties, luncheons and visits to the University of Florida have been arranged. There will be a general meeting, May 4, at 12:15, and a meeting of the house of delegates at 5. The scientific assembly meets May 4 at 2, and in the morning and afternoon, May 5. The speakers will comprise many of the prominent physicians of the state.

ILLINOIS

State Medical Meeting.—The seventy-sixth annual meeting of the Illinois State Medical Society will be held at Champaign-Urbana, May 18-20, under the presidency of Dr. Jacob C. Krafft, Chicago. The house of delegates meets Tuesday morning. David Kinley, LL.D., president, University of Illinois, will address the general session on that day on "Some Influences Affecting Medical Education." The oration in medicine will be delivered by Dr. William Engelbach, St. Louis, Wednesday evening; the oration in surgery by Dr. William D. Haggard, Nashville, Tenn., immediate past president of the American Medical Association, on "The Present Status of the Goiter Problem." Among other visiting speakers will be Dr. W. McKim Marriott, St. Louis, "Newer Knowledge Concerning Nephritis"; Dr. Arthur Steindler, Iowa City, "Treatment of Mediastinal Abscess Complicating Dorsal Pott's Disease"; Dr. Donald MacRae, Jr., Council Bluffs, Iowa, "Emergency Lung Surgery", and Frederick L. Hoffman, Ph.D., Newark, N. J., "The Cancer Outlook." An excellent program of entertainment has been arranged.

INDIANA

License Reinstated.—The license of Dr. William B. Hartsock, Indianapolis, which was revoked, April 17, 1924, was reinstated, Jan. 12, 1926, says the state board of medical registration. Dr. Hartsock served a term in prison at Atlanta for violation of the Harrison Narcotic Law.

Moving Pictures of Smallpox.—Since February 14, the film "One Scar or Many" has been shown in the Gary schools ninety-six times to 12,880 children, portraying the various stages of smallpox and how it can be prevented by vaccination. As a result, the state board of health says, the school physician has vaccinated 1,481 children since February 14, and had more than 200 requests which had not yet been done. Before the film was shown this year in school, that is, from Sept. 4, 1925, to February 14, the total number of vaccinations performed by school physicians was 691.

IOWA

Guests at State Meeting.—At the seventy-fifth annual session of the Iowa State Medical Society, Des Moines, May 12-14, the visiting speakers will be Drs. Olin West, Chicago, Albert R. Mitchell, Lincoln, Neb., William J. Mayo, Rochester, Minn., Allen B. Kanavel, Chicago, Max A. Goldstein, St. Louis, Charles A. Elliott and William Allen Pusey, both of Chicago, George E. Price, Spokane, Wash., Franklin P. Gengenbach, Denver, Paul D. White, Boston, and John B. Deaver, Philadelphia. Thursday evening will be "guests and past presidents' evening"; the president, Dr. Smith A. Spilman, will give his address, and the secretary, Dr. Tom. B. Throckmorton, will present the guests and past presidents; Dr. Walter L. Bierring's subject will be "A Diamond Jubilee" and that of Dr. Charles Ryan, "Reminiscences"; there will then be an award of prizes for the best story pertaining to medical experiences, for the oldest member present, and for the best antique medical and surgical exhibit. The annual banquet will be Wednesday evening at the Hotel Des Moines. The scientific program comprises clinical demonstrations and addresses by the guests and prominent physicians of the state. Luncheons at the Wakonda Club, a matinee and bridge party in addition to the banquet and past presidents' evening have been arranged for the ladies.

LOUISIANA

State Medical Election.—At the forty-seventh annual convention of the Louisiana State Medical Society, Monroe, April 17, Dr. Stephen M. B. Blackshear, New Orleans, was elected president, and Dr. Arthur A. Herold, Shreveport, president-elect; Drs. James A. White, Alexandria, Courtland P. Gray, Monroe, and Remy G. Ducote, Bordelonville, vice presidents, and Dr. Paul T. Talbot, secretary-treasurer. The next annual meeting will be held in New Orleans.

New Orleans Tuberculosis Clinics.—The New Orleans Antituberculosis League's clinics were attended during February by 1,011 persons, a new high record; 133 of these were new patients and of them twenty-two were found positive for tuberculosis, and thirty-seven were placed under observation. The league has three morning clinics under the direction of Dr. Julius M. Davidson, and four afternoon clinics under the direction of Dr. George S. Brown. It is now possible, says the *Times Picayune*, that any one in New Orleans can receive at these clinics an examination for tuberculosis by experts.

Hospital News.—The report of the superintendent of Charity Hospital, New Orleans, notes that the John Dibert Tuberculosis Hospital, which was constructed as an associated unit, will be maintained without cost to the state; a new unit of 120 beds to Charity Hospital, made possible by public subscription, was opened last December, and ninety beds are in order. The hospital needs more nurses and interns, for whom there are now insufficient housing facilities.——The first unit of the Southern Baptist Hospital, New Orleans, was opened for the reception of patients, March 8; it has a capacity of 218 beds; when complete, the hospital will have a capacity of 800.

MISSOURI

Hospital News.—The Missouri Conference of the Methodist Episcopal Church has made plans to raise $300,000 for the Missouri Methodist Hospital in St. Joseph, the campaign to extend over a period of three years, the churches of St. Joseph to raise $50,000 annually, and other churches in the conference outside the city to raise a like amount.——The Missouri Hospital Association will hold its annual meeting, May 17, in St. Louis.

Attorney General's Opinion.—Attorney General Gentry has given an opinion to the city counselor of St. Louis, stating that a physician not licensed in Missouri, although he had served in the U. S. Public Health Service, cannot act as hospital commissioner of the city of St. Louis or director of medical and tuberculosis dispensaries, without first being examined by the state board of health as to his qualifications and obtaining a license to practice. The ruling was made to establish the right of Dr. R. A. Gunter, head of the Veterans' Bureau at St. Louis, to accept the appointment of tuberculosis controller of that city. The opinion removes all doubt as to the right of a person to practice in Missouri even though his practice is limited to state, municipal or county service on a salary basis, without a license. Physicians in the service of the United States government are exempted by statute while they are serving in their official capacity.

NEW YORK

Civic Award to Dr. Birkhaug.—The Women's Educational and Industrial Union of Rochester has made its initial civic award to Dr. Konrad E. Birkhaug, associate in bacteriology, University of Rochester School of Medicine, for his "contribution to medical knowledge and relief of human suffering." The award of $500 and a diploma was made by the president of the university, Rush Rhees, and the address of the evening was by George Barton Cutten, president of Colgate University, whose subject was "Rewriting History." The award is given for the most "outstanding service for the best interests of Rochester during the year." Dr. Birkhaug's contribution is said to have been in connection with research on the cause and treatment of erysipelas.

Society News.—Dr. Marion Craig Potter, Rochester, has been elected president of the Women's Medical Society, New York; Drs. M. Louise Hurrell, Rochester, Adelaide Dutcher, Syracuse, and Edith R. Spaulding, New York, vice presidents; Dr. Anna Harvey Voorhis, Yonkers, secretary, and Dr. Harriet F. Coffin, New York, treasurer.——Dr. Lewis Gregory Cole presented an illustrated paper, "Cinema of the Lungs," before the Medical Society of the County of Kings, April 20, and Dr. Stuart Pritchard, Battle Creek, Mich., gave an address on "Differential Diagnosis of Thoracic Affections." The society recently gave a series of sixteen health talks and motion picture demonstrations in one of the large department stores, which was a feature of its educational program.—— At the April 15 meeting of the Brooklyn Ophthalmological Society, three cases were presented of blindness following the use in pneumonia of some of the newer quinine derivatives.——Dr. Samuel Parnass has been elected president of the Brooklyn Urological Society; Dr. Albert Harris, vice president, and Dr. Abraham Ravich, secretary-treasurer.

New York City

Dr. Gay Appointed Visiting Professor.—Dr. Frederick P. Gay, professor of bacteriology, Columbia University College of Physicians and Surgeons, has accepted an appointment as visiting professor to Belgium under the auspices of the Committee for Relief in Belgium Educational Foundation. Dr. Gay will remain abroad during the next academic year, lecturing on immunity at the Belgian universities in Brussels, Ghent, Liége and Louvain.

Appointments at Columbia.—Columbia University announces the appointment of Dr. Benjamin P. Watson, of the University of Edinburgh, as head of the department of obstetrics and gynecology with the rank of full professor; also the appointment of Dr. Joseph G. Hopkins, New York, as professor and head of the department of dermatology and syphilology and Dr. George M. MacKee as professor of dermatology and syphilology. Dr. Watson was born in Scotland in 1880 and received the M.B. and Ch.B degrees at the University of Edinburgh, where he became lecturer in obstetrics and gynecology in 1905. He was called to Toronto as professor of obstetrics and gynecology in 1912, and was also obstetrician and gynecologist in the Toronto General Hospital; from there he was called to the chair at Edinburgh. Dr. Watson was recently the Buchannan scholar in gynecology at the University of Edinburgh and Freeland Barlow fellow at the Royal College of Edinburgh. He was elected fellow of the American Gynecological Society in 1915. Dr. Hopkins was born in Brooklyn in 1882 and received the M.D. degree from Johns Hopkins University Medical School in 1907; he served there a two-year internship, was two years resident physician at St. Luke's Hospital, and for years after was bacteriologist and assistant attending physician at the same place. He was made assistant professor in the Columbia Department of Bacteriology in 1915, was bacteriologist with the Red Cross Commission in Serbia, and in 1918-1919 was in the Medical Corps in charge of Base Laboratory no. 3 at Winchester, England; on returning, he became associated with the dermatology department at Columbia and for six years has been affiliated as associate in roentgenology with the Crocker Laboratory. Dr. MacKee was born in Jersey City in 1878 and received his M.D. degree from New York University and Bellevue Medical College in 1899. After postgraduate work he entered the service of the late Dr. John A. Fordyce in 1903, then transferred to the Columbia Medical School in 1911 as chief of clinic and instructor; was professor of roentgenology in the Angle School of Orthodentia from 1905 to 1907; editor of the *Journal of Cutaneous Diseases* from 1909 to 1920, and is now on the editorial board of the *Archives of Dermatology and Syphilology*, also consulting dermatologist and syphilologist at various hospitals, and lecturer on cutaneous tuberculosis at the Trudeau School of Tuberculosis, Saranac Lake.

Twenty-Six Dermatologists Resign.—The New York *Times*, April 18, states that twenty-six members of the staff of the department of dermatology, Columbia University College of Physicians and Surgeons and of the Vanderbilt Clinic, resigned within the last week. Among the reasons given was that in selecting a head of the department of dermatology to succeed the late Dr. John A. Fordyce, the faculty of the medical college did not choose the senior member of the department, but selected his assistant. There was said to be a feeling among members of the staff that the governing body had failed to appreciate the service of men of large clinical experience in the treatment of disease and had placed too much emphasis on laboratory work. Those who resigned, according to the *Times*, were:

George M. MacKee	Myles Standish
Fred Wise	Edwin D. Newman
Isadore Rosen	Bernard B. Berkowitz
Joseph J. Eller	H. Norton
Elizabeth C. Jagle	Frederick Amshel
Max Scheer	Louis F. X. Wilhelm
Elias W. Abramowitz	Lotta W. Myers
David Bloom	Josiah P. Thornley
Harry C. Saunders	Samuel J. Littenberg
David Ballin	John H. Harris
David L. Satenstein	Van Alstyne H. Cornell
Charles Lerner	Louis Tulipan
Samuel Strumwasser	John Remer

OHIO

Society News.—Dr. Willard C. Stoner, director of medicine, St. Luke's Hospital, Cleveland, addressed the Hancock Medical Society, Findlay, April 7, on "The Problem of the Subacutely and Chronically Ill."

Chiropractors in Court.—The Ohio State Medical Board reports that the following chiropractors were recently convicted of practicing without a license:

H. S. Heimbaugh, Painesville, $25 and costs.
A. P. Jacobson, Fairport Harbor, $25 and costs.
L. S. Williams, of Grand Rapids, was convicted at Bowling Green.
Paul O. Mende, Ironton, $75 and costs.

Hospital News.—The Oxford Retreat, Oxford, has sold its main building and a portion of the ground to Miami University, and during the past year has been constructing a new modern, fire-proof stone building, which was opened, about April 15, for the use of mild mental cases.——The new Starling-Loving University Hospital, Columbus, has been in operation for about six weeks.——The Ohio Hospital Association and the Ohio Dietetic Association held their annual convention in Columbus, March 31-April 1; among the speakers at the annual dinner were Dr. Arthur C. Bachmeyer, Cincinnati; Dr. William H. Walsh, Chicago; Dr. Thomas A. Ratliff, Cincinnati; Dr. Clarence L. Hyde, Akron, and Dr. Edson J. Emerick, Columbus.——A dinner was given, March 11, at the Charity Hospital, Cleveland, in honor of Dr. Frank E. Bunts to commemorate his forty years' service to that institution; about 175 physicians were in attendance, and among the speakers were Dr. Thomas A. Burke, Dr. Carl A. Hamann, Dr. Joseph E. Cook, and Bishop Joseph Schrembs.——The Charity Hospital is conducting a campaign for $1,500,000 for remodeling and enlarging the hospital.

OKLAHOMA

Change of Date of Meeting.—The Oklahoma State Medical Association has changed the date of the next annual meeting to June 22-24, 1926. The reason given in the journal of the association is that the president and other men prominent in the association had been assigned to temporary military duty during the original date set for the meeting in May.

Revocation of License Sustained.—The Supreme Court of Oklahoma upheld the action of the Pottawatomie Superior Court in dismissing the application of Dr. Paul P. Oliver, Shawnee, for a writ of certiorari in connection with the revocation of his license to practice by the state board of medical examiners, after having been found guilty of unprofessional conduct.

PENNSYLVANIA

Fifty Years in Practice.—Patients and friends of Dr. James M. Hamilton, Oakmont, a suburb of Pittsburgh, recently presented him with a new motor car on his completion of fifty years in practice in that community; in the near future the chamber of commerce will celebrate the occasion by the observance of "Hamilton night."

State Health Department Items.—The state department of health will conduct an exhibition at the Sesqui-Centennial in Philadelphia, which will show the progress in public health work in Pennsylvania in the last century; it will be in the left wing of the Pennsylvania Building.——A recent typhoid epidemic at Glenshaw, near Pittsburgh, was found to be due to a well polluted by seepage from a nearby cesspool.——Cumberland County has just formed a public health association and elected Dr. Henry C. Lawton, Camp Hill, president; a number of counties in the state have such organizations, the purpose of which is to correlate the work of the county units, state department of health and the state association.——There was an outbreak of smallpox recently at St. Mary's Monastery and St. Fidelis College, Herman, Butler County; three of the eight patients were priests and all of them had either never been vaccinated or had been vaccinated unsuccessfully. During the recent severe outbreaks of measles in various parts of Pennsylvania, the state department of health issued instructions concerning control, in which it disapproved the closing of schools to control outbreaks of measles or other contagious diseases. It was urged that daily inspections be made of all school children in search for early symptoms of disease, and that when a case is discovered in a classroom, the daily examination should be maintained for two weeks to discover other cases that might develop from the first exposure.——The death rate for diphtheria in the state recently has been the lowest ever experienced, representing a 50 per cent reduction since diphtheria immunization was begun by the state department of health in 1921.

Philadelphia

Society Dedicates New Home.—The Philadelphia County Medical Society dedicated its new home at Twenty-First and Spruce streets, April 20 and 21, with appropriate ceremony. Dr. Isidor P. Strittmatter, chairman of the building committee, presented the deed and keys of the building to Dr. Moses Behrend, president of the society, who made the principal address; among the other speakers were Drs. William W. Keen, Arthur C. Morgan and Hobart A. Hare, representatives of the chamber of commerce, the common pleas court, the law association, and the board of trustees of Jefferson Medical College. There was a housewarming Wednesday night with a musical program and dancing. The *Weekly Roster and Medical Digest*, April 17, celebrates the opening of this society home with reproductions of photographs of members prominent in the construction and dedication of the building.

SOUTH CAROLINA

State Medical Election.—At the seventy-eighth annual meeting of the South Carolina Medical Association, Sumter, April 6, Dr. George H. Bunch, Columbia, was elected president; Drs. William C. Black, Greenville, Charles J. Lemmon, Sumter, and William L. Pressley, Abbeville, vice presidents, and Dr. Edgar A. Hines, Seneca, secretary-treasurer, reelected. The next annual meeting will be held in Anderson, April, 1927.

TENNESSEE

Society News.—The Memphis and Shelby County Medical Society will celebrate its fiftieth anniversary, May 13, at the University Club; a nonscientific program and a banquet have been arranged.

Personal.—Dr. Barney Brooks, professor of surgery, Vanderbilt University School of Medicine, Nashville, addressed the Cincinnati, Ohio, Academy of Medicine, April 5, on "Diseases of the Circulation of the Extremities."

Hospital News.—The board of trustees of the Baptist Memorial Hospital, Memphis, will erect a nine story annex to the present building on Madison Avenue. The *Memphis Medical Journal* says that commercial shops and branch banks will be allowed space in the building.

University News.—Dr. James M. Skinner, Jr., McMechen, W. Va., Dr. Morton J. Tendler, New Haven, Conn., and Dr. James W. McElroy, Memphis, have been appointed resident surgeon and instructor in surgery, resident physician and instructor in medicine, and resident pathologist and instructor in pathology, respectively, at the University of Tennessee School of Medicine and the Memphis General Hospital.

TEXAS

Chiropractors Lose Appeal.—The U. S. Circuit Court of Appeals at New Orleans refused to grant an injunction, April 16, petitioned for by chiropractors of Texas, it is reported, to restrain the attorney general and others in the state from arresting them for practicing without a license as provided for in the Texas medical law of 1907.

State Medical Meeting.—The sixtieth annual session of the State Medical Association of Texas will be in Houston, May 25-27, under the presidency of Dr. Charles M. Rosser, Dallas, with headquarters at the Municipal Auditorium. There will be a luncheon daily at the Rice Hotel, addressed by prominent physicians. Dr. William Seaman Bainbridge will address a public session, Wednesday, on "Recent Investigations Into the Cause of Cancer and the Outlook for Prevention and Treatment," and the section on surgery on "Gastro-Intestinal Diverticula." The alumni banquet will be Tuesday evening, May 25, following the memorial exercises. In addition to prominent state physicians who will address the sections, Dr. William Engelbach, St. Louis, will speak on "Hair Growth and Pigmentation Related to Endocrine Disorders." The Texas Radiological Society and the Texas Federation for Health Education will hold their meetings during the session; also the Texas Railway Surgical and Hygienical Association.

VIRGINIA

State Board Election.—Dr. William T. Graham, Richmond, was elected president of the state board of health at the April 1 meeting, to succeed the late Dr. William M. Smith; Guy R. Harrison, D.D.S., Richmond, was elected vice president, and Dr. Lawrence T. Royster, University, secretary.

Personal.—Dr. Estridge P. White, Odd, has been elected president of the First National Bank of Poquoson.——Dr. Sidney L. Scott has been elected president of the chamber of commerce of Fredericksburg.——Dr. Louis E. Fuller, Callands, has been appointed a member of the school board of Pittsylvania.——Dr. and Mrs. William T. McLemore, Courtland, celebrated their silver wedding anniversary, April 3.

Hospital News.—The proposed hospital for crippled children to be erected in Richmond by the Shriners will be on a site of about 9 acres, recently purchased, on Grove Avenue west of the belt line.——The $60,000 required to be raised for a hospital by the community of Farmville, for which the Commonwealth Fund will give $120,000, was almost all subscribed at last accounts, and it was expected that the contract for the hospital would be let in April.——At the celebration of the twentieth anniversary of the Elizabeth Buxton Hospital, Newport News, February 23, the staff presented a memorial tablet of the late Dr. Edwin M. Newsom.——A twenty-four room building is being added to the Seaside Cottage Sanatorium at Virginia Beach which will open, June 1, under the supervision of Drs. William L. Harris and Claiborne Willcox. The resident physician will be Dr. Cora Z. Corpening.

WEST VIRGINIA

Miscellaneous Items.—The West Virginia Medical Association will hold its annual meeting at Morgantown, May 25-27.——There were about twenty deaths in the state in January and February due to measles; about 983 cases were reported in February, twice the number reported in January.

WISCONSIN

Society News.—Dr. Harry Gideon Wells, Chicago, addressed the Medical Society of Milwaukee County, Milwaukee, April 9, on "The Influence of Heredity on the Occurrence of Cancer in Man."

Milwaukee's Health Report.—The general death rate in Milwaukee in 1925 was 10.6, and the infant mortality 77; both slight increases over 1924, but lower than the average for the last five years. There was a smallpox epidemic in 1925 in which eighty-seven people died; there were 381 cases of acute alcoholism admitted to hospital, as compared to 376 the year before. Pneumonia caused 717 deaths, or 196 more than the year before; heart disease came second, with an increase over the preceding year; then cancer, cerebral hemorrhage, nephritis and pulmonary tuberculosis. There were 336 prosecutions for violations of laws which protect the public health. Among the ordinances passed in 1925 was one which requires eating places to serve milk in the original bottles, and one requiring all food venders to obtain a license

from the health department. There were fewer deaths from typhoid and scarlet fever; 12,229 treatments with toxin-antitoxin for the prevention of diphtheria were given. The bacteriologic laboratory made more than 53,000 examinations, and the nurses of the health department made more than 300,000 inspections of children in the schools for contagious disease.

GENERAL

Sex Differences in Mental Traits.—An extensive bibliography of "Sex Differences in Mental Traits," prepared by C. M. Louttit of Yale University, New Haven, Conn., is reprinted in the April number of *Welfare Magazine*, published by the department of public welfare of the state of Illinois at Springfield.

National Hospital Day.—May 12 has been set aside as National Hospital Day in order to make people better acquainted with hospitals. There is to be no solicitation or drive. The American Hospital Association will issue a certificate of award to be given to that hospital whose hospital day program is considered most meritorious; hospitals are requested to send to the association details of their program and other material which indicate how effective it was.

Committee Favors Retired Pay for Nurses.—There has been favorably reported from the Senate Committee on Military Affairs a bill providing for retirement pay for army and navy nurses. The bill has the approval of Secretary of War Dwight F. Davis and was endorsed also by his predecessor, Secretary J. W. Weeks; it recognizes the fact that nurses are an integral part of the military establishment and that they should have the same privileges with respect to retirement pay as are now awarded to regular army and navy officers after a definite period of service.

Delegation to Study Trachoma Among the Indians.—The New York *Times*, April 25, notes that a delegation of ophthalmologists and others left the previous day to inspect Indian reservations in Oklahoma in an effort to check trachoma. The delegation includes Dr. Benjamin Franklin Royer, medical director, National Committee for the Prevention of Blindness; Dr. Arthur M. Yudkin, Yale University School of Medicine, New Haven, Conn.; Dr. William H. Wilder, Chicago, and Dr. Thomas B. Holloway, University of Pennsylvania School of Medicine.

Pan-American Health Conference.—Surg. Gen. Hugh S. Cumming, U. S. Public Health Service, has issued invitations to health officers in the twenty-one countries which comprise the Pan-American Health Conference, for a meeting in Washington, D. C., September 27-29, when problems of health administration and disease control will be discussed. It is expected that one or more health officers from each country will be present and remain to attend the meeting of the International Union Against Tuberculosis, which will be held in Washington, September 30-October 2.

Society News.—Dr. William H. Kiger, Los Angeles, has been elected president of the American Proctologic Society for the ensuing year; Dr. George W. Combs, Indianapolis, vice president, and Dr. Louis A. Buie, Mayo Clinic, Rochester, Minn., secretary-treasurer.——At the annual meeting of the New England Dermatological Society, April 14, Dr. Charles Morton Smith, Boston, was elected president, and Dr. Walter T. Garfield, 19 Bay State Road, Boston, secretary.——At the annual meeting of the Medical Women's National Association, Dallas, Texas, April 18-19, Dr. Frances E. Rose, Spokane, Wash., was elected president; Dr. Elizabeth B. Thelberg Poughkeepsie, N. Y., president-elect; Dr. Ethel Doty Brown, treasurer, and Dr. Maud Parker, Seattle, secretary.

Sight Saving Classes.—The managing director of the National Committee for the Prevention of Blindness announces that a course for training teachers for sight saving classes will open, June 21, at the University of Cincinnati and continue for six weeks. Full credit will be given by the university for this work. Applications for registration have been received from a number of states. The work includes: theories and methods of supervision and organization of sight saving classes; theories and methods of teaching sight saving classes, and courses in elementary and advanced eye work. There are said to be in the United States 242 sight saving classes, which is far below the number needed to educate properly children who have seriously defective vision and who therefore need special educational facilities. A lack of teachers is said to be the principal difficulty in the way of establishing more sight saving classes.

International First-Aid Contest.—Under the auspices of the U. S. Bureau of Mines, the fifth International First Aid and Mine Rescue Contest will be held in the Civic Auditorium, San Francisco, and the Greek Theater of the University of California, Berkeley, during the first week of September. The object of this annual event is to train miners in first aid and rescue methods in order to advance the cause of safety among miners. The contest in first aid and mine rescue will be for international championships; cups, medals and prizes will be awarded to the winners. A feature of the meeting will be the award of the Congressional Medal, which is given to the team of miners most thoroughly skilled in first aid and mine rescue methods. Judges thoroughly familiar with this work will make the awards in accordance with standards of the bureau of mines. All organizations interested in the contest are invited to enter first aid and mine rescue teams. Entry blanks and other information can be obtained from the Experiment Station, Bureau of Mines, 4800 Forbes Street, Pittsburgh.

American Society for the Control of Cancer.—At the business meeting in March in New York of the American Society for the Control of Cancer, the managing director, George A. Soper, Ph.D., reported that he had spent three months in Europe interviewing about fifty eminent students of cancer and seeing cancer clinics and hospitals, and had made arrangements for a visit to this country in September of distinguished cancer specialists. The society is now endeavoring to increase its endowment to at least $1,000,000. Mr. John D. Rockefeller, Jr., has just contributed $125,000 toward the expense of the society's work, and made an additional offer of $10,000 toward the expense of the meeting of specialists to be held in September. The field secretary of the society in the last year addressed medical and lay audiences in every state except two, and collected information about the society's work throughout the country. Preparations have been made to conduct an educational campaign throughout the country in the immediate future with "ammunition" of a more effective character than has been used heretofore; this campaign will not be of the "cancer week" variety, but of a longer and less intensive character. The results of this work will depend largely on the state cancer organization; an Eastern state is perfecting an elaborate organization to promote a three year campaign of exceptional thoroughness.

Bequests and Donations.—The following bequests and donations have been announced recently:

St. Luke's Hospital, Davenport, Iowa, $10,000, and the Visiting Nurses Association, Davenport, $1,000, by the will of the late Mrs. Susan C. Francis, Davenport.

The Mount Sinai Hospital, $10,000, by the will of the late Rosa Hochstader.

The Presbyterian Hospital, Charlotte, N. C., $15,000, by the will of the late Mrs. W. S. Alexander.

The will of the late J. Adolph Mollenhauer of Brooklyn provides bequests of $5,000 each to the Lutheran Hospital Association, New York; the South Side Hospital, Bay Shore, L. I.; the Industrial Home for the Blind, New York, and the Visiting Nurses Association, New York, and $10,000 to the House of St. Giles the Cripple, New York.

The Samaritan Hospital and Temple University, each $1,500, by the will of the late Mary J. Mabie.

Pennsylvania Hospital, Philadelphia, $1,000, and the Federation of Jewish Charities, $4,000, by the will of the late Louis Kohn.

The Presbyterian Hospital, Philadelphia, $5,000 to endow a free bed, by the will of the late Sarah I. Alvord.

The St. Luke's Hospital, New Bedford, Mass., $25,000; the Association for the Relief of Aged Women, New Bedford, $10,000; Yale University, New Haven, Conn., $100,000, by the will of the late William W. Crapo of New Bedford.

The Memorial Hospital, New York, $25,000, by the will of the late James Jackson Storrow of Boston.

St. Luke's Hospital of Newburgh, N. Y., $5,000, by the will of Jessie M. Gibson of Yonkers.

The Huntington Hospital, Huntington, L. I., $10,000, by the will of the late Mrs. Emma Hewlett.

The Brooklyn Home for the Blind, Crippled and Defective Children, St. Peter's Hospital, Holy Family Hospital, Little Sisters of the Poor and the Nursing Sisters of the Sick Poor, Brooklyn, each $500, by the will of Catherine Donigan.

The Philadelphia Home for Incurables, $15,000, to endow free beds in memory of her parents; the Presbyterian Hospital, Philadelphia, $10,000, to endow beds in memory of her brothers, and the Home of the Merciful Saviour for Crippled Children and the Children's Seashore House, Atlantic City, $5,000 each, by the will of the late Jennie Forrest.

The Home for Old Men and Aged Couples, New York, $17,000, and the New York Association for the Blind, $2,632, by the will of Cora C. Withers.

The Michael Reese Hospital, Chicago, $600,000, by the will of the late Henry L. Frank.

The St. Rose Home for Cancer, New York, $1,000, by the will of Bertha French.

The Home and Hospital, Findlay, Ohio, $12,000, by the will of Maretta Lenhart.

The Union Hospital, Terre Haute, Ind., $40,000, by the will of Martin A. Sheets.

Dr. Carl A. Grote has donated $10,000 to the Huntsville Hospital, Huntsville, Ala., as a memorial to his father.

The Addison Gilbert Hospital, Gloucester, Mass., $15,000, by the will of Lucy Brown Davis, for the support of a room to be named in honor of the donor.

The Bryn Mawr Hospital, Bryn Mawr, Pa., $100,000, by the will of John Howard Supplee of Rosemont, as a memorial to his son.

The Jewish Sheltering Home and the Jewish Home for the Aged, Rochester, N. Y., each $500 by the will of Augusta Black.

The Beth Israel Hospital, New York, $250, by the will of the late Simon Abrons.

The Women's Hospital, New York, $300,000, by the will of the late Mrs. Mary Clark Thompson.

The State Charities Aid Society of New York, $500,000, and the Charity Organization Society of the City of New York, $25,000, by the will of the late Mrs. Anna M. Richardson Harkness.

Roosevelt Hospital, New York, $100,000, by the will of the late Mrs. Mary E. Jesup, as a memorial to her husband, and with the proviso that only the income of the fund be used by the hospital.

The Jewish Hospital, Brooklyn, $1,000, by the will of Monday Esther.

The New York Society for the Prevention of Tuberculosis and the Jewish Hospital for Consumptives, Denver, $1,000 each; the Trudeau Sanatorium, Trudeau, N. Y., Saranac Lake, and the Society for the Prevention of Tuberculosis, Saranac, N. Y., $500 each, by the will of Harry E. Schwarz.

PORTO RICO

Dr. Hill Goes to Venezuela.—After six years of public health work in Porto Rico in connection with the Rockefeller Foundation, Dr. Rolla B. Hill has been selected to represent that organization in Venezuela in the same capacity; he sailed for New York, March 11, after having been the guest of honor at a luncheon tendered by the commissioner of health of the island. Dr. Hill came to Porto Rico in 1920 to cooperate with the department of health in a campaign against the hookworm, and since July, 1925, has been medical adviser to the bureau of rural sanitation, in which office he will be succeeded by Dr. Florence A. K. Payne of the International Health Board.

FOREIGN

International Union Against the Venereal Peril.—The first number of the *Bulletin* issued by the *Union Internationale contre le Péril Vénérien* gives the history of the society and its aims. Thirty-four countries are officially represented in the union.

Success of Antityphoid Vaccination.—The recent extensive inundations in the lower Rhine region caused much alarm from fear of typhoid, but our Belgian exchanges state that quantities of antityphoid vaccine were donated and used in the flooded regions in Belgium, and the danger of an epidemic was averted.

Italy Bars Birth Control.—A cable dispatch notes that the minister of the interior of Italy has installed a committee to protect the families of that country against "insidious, practical, pseudoscientific neomalthusian propaganda." The minister is reported to have said that Italy is now seriously affected by birth control propaganda and that it has been decided to protect the family by decreasing infant mortality and conquering "egotistic birth control propaganda."

New Medical Journal.—The first number, that of January, of the *Malayan Medical Journal and Estate Sanitation* has been received. It is said to be the only medical journal published in Malaya, and will publish material peculiar to that region. The editors are Drs. T. S. Macaulay, G. B. McHutchison, J. J. Hicky and W. Thunder. It is to be a quarterly record of medicine and surgery, with especial reference to tropical medicine and estate health.

Personal.—Dr. C. Baastrup, the radiologist of the Bispebjærg Hospital, Copenhagen, has been elected a member of the French Société de radiologie médicale.——Dr. C. van Veen, Helmersstraat 206, Amsterdam, was the secretary of the first Netherlands pedagogic congress which met at Amsterdam April 8.——Dr. Duchateau was the representative of the government at the exposition of the work of women at the family placement colony at Gheel. For centuries Gheel has been an important element in the care of the docile insane in Belgium. The wives of the five local physicians have recently been encouraging the women in handiwork, and the results have been excellent from the therapeutic as well as the artistic standpoint, according to the *Scalpel* of Brussels.——Dr. J. Leclercq delivered an address on "The Time Required for Nerve Impulses During Work" at the recent inauguration of the university Institut des sciences sociales at Lille.——Dr. Carteado Mena, Oporto, has had to have part of his right hand amputated on account of professional roentgen-ray injuries, the first victim of the kind in Portugal.——The Engadine region has been celebrating the twenty-fifth anniversary of the introduction of heliotherapy into scientific medicine by Dr. Oskar Bernhard, who has practiced in the Engadine for forty years. As a final, desperate resort in a case of a grave wound which had absolutely refused to heal, he recalled the sterilized and shriveled condition of sun-dried thin strips of beef, the charqui or jerked beef of South America.

Government Services

Appointments and Resignations in Veterans' Bureau

The April issue of the U. S. Veterans' Bureau *Medical Bulletin* notes the following appointments and resignations of physicians in the Veterans' Bureau at the hospital indicated:

Dr. E. L. Hunt appointed pathologist, Hospital 89, Dec. 1, 1925.
Dr. Herman Judd, resigned at Hospital 98, Dec. 31, 1925.
Dr. Harold T. Nesbit, resigned at Hospital 65, Feb. 28, 1926.
Dr. Ambler B. Patton, resigned at Hospital 60, Dec. 4, 1925.
Dr. Waldermar G. Richter, appointed at Hospital 86, Dec. 1, 1925.
Dr. Wilmarth Y. Seymour, appointed at Hospital 62, Dec. 16, 1925.
Dr. George S. Silliman, appointed at Hospital 103, Dec. 28, 1925.
Dr. James A. Smart, appointed at Hospital 88, Jan. 21, 1926.
Dr. Hyman D. Shapiro, resigned at Chicago (Central Board of Appeals, Area D), Jan. 14, 1926.
Dr. Benjamin A. S. Stephenson, resigned at Hospital 69, Feb. 17, 1926.
Dr. Henry O. Witten, resigned at Hospital 42, Jan. 10, 1926.

U. S. Public Health Service

Surg. Marshall C. Guthrie was relieved from duty as executive officer of the bureau, Washington, D. C., March 26, and directed to report to the Secretary of the Interior for duty in connection with the Indian Medical Service.——Acting Asst. Surg. Gordon B. Carr was directed, March 27, to proceed from Sturgis, Ky., to Chicago for duty in Marine Hospital no. 5.——Surg. Joseph Goldberg was directed to proceed from Washington, D. C., to New York, March 29, and return in connection with pellagra studies.——P. A. Surg. Kenneth F. Maxcy will be relieved from duty at Montgomery, Ala., May 1, when he will report to the director of the hygienic laboratory, Washington, D. C., for duty. Drs. Marion F. Haralson and John F. Mahoney have been promoted and commissioned in the grade of surgeon, effective March 18, 1926.——Lieut. M. Rogers has been promoted and commissioned in the grade of passed assistant surgeon, U. S. Public Health Service, effective, April 5.

Navy Orders

Lieut. Comdr. Reynolds Hayden has been ordered to the naval training station, Hampton Roads, Va., for duty; Lieut. Waldo E. Golden to the naval hospital, Great Lakes, Ill.; Lieut. Comdr. Fenimore S. Johnson to the naval hospital, New York; Lieut. James Humbert to the recruit barracks, Hampton Roads, Va.; Lieut. Comdr. Horace V. Cornett to the naval hospital, League Island, Philadelphia; Lieut. Comdr. Harry R. Hermesch to the navy yard, Washington, D. C.; Lieut. Francis E. Tierney to the naval air station, San Diego, Calif.; Lieut. George W. Wilson to the naval hospital, Puget Sound, Wash., and Lieuts. Charles R. Tatum and Arthur S. Judy to Port au Prince, Haiti.

Summer Camps for Reserve Officers

Surgeon General Merritte W. Ireland, announces that the medical department of the army will maintain camps this summer for the military training of physicians who have commissions in the medical reserve corps. The war department has selected four camps for training physicians at Carlisle Barracks, Pa.; Fort Snelling, Minn.; Fitzsimons General Hospital, Denver, Colo., and Camp Lewis, Washington. Officers of the various sections of the medical reserve corps, who can accept training, will have the advantage of full field instruction, including tactics and technic of operation of divisional medical units. Troops will be available to demonstrate the operation of these units. It is proposed to make the training intimate and practical, presenting to reserve officers the opportunity to exercise command and execute plans simulating actual conditions that will prevail when they are called in emergencies. The training is for a period of two weeks at each camp during June and July, respectively. The camps open June 13 and close June 27 at Fort Snelling and Camp Lewis, and open June 16 and close June 30 at Carlisle Barracks, Pa. The camps for the month of July open July 4 and close July 18. Members of the medical reserve corps who desire to attend camp should apply to the commanding general of the corps area in which they reside. Transportation is paid to and from the camps, and reserve officers receive the same pay and allowances granted to regular army officers of like grade. A limited number of reserve officers can be accommodated at the camps; medical reserve officers are urged, therefore, to mail their applications promptly to the commanders of the corps area in which they reside.

Foreign Letters

LONDON

(From Our Regular Correspondent)

April 10, 1926.

Government Bill to Prevent Lead Poisoning

The text has been issued of the lead paint (protection against poisoning) bill, introduced by the government to make better provision for the protection against lead poisoning of persons employed in painting buildings. The home secretary is given power to make regulations: (*a*) for prohibiting the use of any lead compound except in the form of paste or of paint ready for use; (*b*) for the prevention of danger arising from the application of lead paint in the form of spray; (*c*) for the prevention so far as practicable of danger arising from dust caused by dry rubbing down and scraping; (*d*) for providing for the medical examination of persons employed in or in connection with painting with lead paint, and for the suspension from such employment of persons whose health is or appears likely to be injuriously affected thereby; (*e*) for securing facilities for washing during, and on cessation of, work to persons employed in painting; (*f*) for the use of protective clothing by persons so employed and for preventing clothes left off during work from being soiled by paint, and (*g*) for the distribution to persons so employed of instructions with regard to hygienic precautions to be taken. Clause 2 prohibits, after Nov. 19, 1927, the employment of women and young persons in painting buildings with lead paint, with the exception of apprentices in the painting trade under approved arrangements, and women or young persons engaged in decorative or other work excluded from the provisions of this section by an order of the secretary of state. Another clause gives power to an inspector under the factory and workshops act to take samples.

The Apologia of the General Medical Council

The press campaign against the general medical council because of its removal from the register of physicians guilty of trying to obtain patients by articles in the lay press, or of "covering" unqualified practitioners, has been described in previous letters. As much misconception exists, among not only the public but also the medical profession with regard to its functions, the council has issued a long memorandum on its constitution and functions. The council was created nearly seventy years ago by parliament, not with the purpose of promoting the welfare of professional men or professional corporations or of putting down quackery or even advancing medical science. The object was simply to protect the public. The preamble of the act of 1858 consists of two lines: "Whereas it is expedient that persons requiring medical aid should be enabled to distinguish qualified from unqualified practitioners, Be it therefore enacted. . . ." Up to that time no easily understood line was drawn between the "qualified" and the "unqualified," and when the public desired to make a choice it was frequently at a loss. The act set up machinery for, as it were, "hallmarking" the qualified practitioner, so that he might easily be recognized. But the public was left free then, as it is free now, to seek "medical aid" from the unqualified practitioner. And the unqualified practitioner was left free then, as he is free now, to practice for gain among those who choose to employ and pay him. He was forbidden, under penalties, to pretend that he was qualified, by taking a title he did not possess; he might not use the courts for the recovery of his charges; he could not give a valid certificate of sickness or death; and now by the regulations made under the dangerous drugs act he cannot prescribe certain dangerous drugs, such as cocaine or morphine; but except for these and a few other not very inconvenient disabilities, he was untouched by the law. On the other hand, the "qualified" men, as a setoff to their new legal status and official recognition, were subjected to a new central control, educational and disciplinary. They obtained no monopoly of practice among the public in general. They were afforded no especial "protection" against the competition, not always scrupulous or insignificant, of the uncontrolled unqualified practitioner. The qualified practitioners might fairly have claimed that it would be good for the public, as well as for themselves, if monopoly of practice and protection against the competition of the untrained had been conferred on them. In other countries, and in other parts of the dominions, the restriction of practice to the qualified is with general consent and approval enforced by law. There, any unqualified person who habitually and for gain practices or holds himself out as practicing any branch of medicine or surgery is liable to severe penalties. In this country, indeed, the practice of dentistry and the practice of midwifery have been by law restricted to qualified persons. But in these days it requires some resolute ignoring of the signs of the times to believe that, in this free country, legislation restricting the practice of medicine and surgery to qualified persons only is either probable or possible in the near future. In one significant respect, however, the council is empowered to "protect" the aspirant to qualification—not against the competition of the unqualified, but against the possible action of the licensing bodies imposing on any candidate an obligation to adopt or refrain from adopting the practice of any particular theory of medicine or surgery, as a test or condition. Once a practitioner has been trained and tested in the knowledge essential for public safety, he may adopt any "theory" of medicine or surgery in which he honestly believes. Indeed, at present some qualified practitioners are engaged without any hindrance in such crank practices as osteopathy and the use of the Abrams diagnostic box.

An Inquiry into Osteopathy

In a letter to the *Times*, Sir Montague Cotterill, a surgeon, points out that there are a certain number of duly registered physicians in this country who, in addition to their ordinary medical qualifications, have taken an opportunity of becoming conversant with the methods and the practice of osteopathy. It is said that these men have thus cured or relieved certain ailments that had failed to be successfully treated by the ordinary methods in vogue in medical practice. Before coming to the conclusion that these cures have been really due to some special osteopathic treatment, one must carefully bear in mind that, contrary to the general public opinion, the medical profession is fully aware of and sets a great value on the curative potentialities of what is commonly called "suggestion," which it prefers to describe as "possessing the confidence of the patient," with all that that entails. To what extent, then, does "suggestion" play a part in the reputed successess of osteopathy? In ordinary medical life any man fortunate enough (as Lister and others have been) to make a discovery, or become possessed of knowledge in any sphere of the healing art which we deem would be of service to the medical world in its important services to the public he would consider it not only imperative but also his greatest pleasure and privilege to impart his knowledge immediately, in all its details, to his medical brethren. One would have thought that the osteopathic registered physicians in this country would in like manner have taken every opportunity of imparting in the fullest way, and at the earliest moment, the details of the special lines of osteopathic treatment which they claim to be of such extraordinary value. But no offer of this kind has been made.

Sir Montague Cotterill suggests that there be appointed a committee consisting of authorities in anatomy, physiology, pathology, medicine and surgery. After an exhaustive investigation of all the matters concerned (and this could not be done except by a visit, extending over several weeks, to the chief school of osteopathy in America), these men would give a report, which would be accepted by the profession.

Physician Fined for Breach of Dangerous Drugs Regulations

At the mansion house before the lord mayor, a physician was summoned for having failed to comply with the provisions of the dangerous drugs act, in that, having supplied quantities of morphine to a person unknown, he did not enter or cause to be entered in a register kept for the purpose all dealings in that drug effected by him in the form and containing the particulars required; namely, did not enter the name or address of the person to whom the drug was supplied by him, and, being a qualified medical practitioner, did not record in a day book the name and address of the patient to whom the drug was supplied by him contrary to the dangerous drugs act. The prosecuting attorney said that this charge conveyed not the slightest reflection on the personal honor of the defendant. It was at the same time a matter of some importance because it was the policy of the home office to insist on the absolute compliance by every physician with the dangerous drugs act. A physician who supplied morphine to any of his patients must either keep a register in the form provided by the act, which must show the name and address of the patient to whom the morphine was given, or he must keep a day book in lieu of the register, which must also contain the name and address of the patient. The sole point in this case was that the physician declined to disclose either in the record under the schedule of the act or in the day book the name and address of the patient for whom he stated that he had been for more than twelve months in the habit of procuring from a pharmacist weekly a regular supply of morphine. Interviewed by a health officer of the ministry of health, he said that he did not now carry on a general practice, but he said that some of his old patients in the North of England had moved to London, and he saw them in a friendly way. Two of them, he said, were morphine addicts, and had asked him to treat them. One of them, a woman, he had succeeded in curing, and the other, a man, was improving as a result of his treatment. Another health officer called on the defendant, who said that his patient was 70 years of age and was improving. He declined to give the name and address of the patient. He did not consider that he ought to disclose the identity of the patient, who was struggling to be free from the necessity of taking drugs. The lord mayor said he had come to the conclusion that there had been a breach of the regulation, but, as in all probability this was a test case, he would impose only a nominal penalty of $125, with $50 costs.

Committee on Vaccination

The minister of health, in conjunction with the medical research council, has appointed a committee to inquire into and report on (1) matters relating to the preparation, testing and standardization of vaccine lymph; (2) the practical methods available in the light of modern knowledge to diminish or remove any risks that may result from vaccination, and (3) the methods of vaccination most appropriate for protection against the risk of smallpox infection in epidemic and nonepidemic periods; and to coordinate the work of investigation of these questions in this country and abroad, having regard to corresponding work undertaken by international health organizations. The committee consists of Sir Humphry Rolleston, president of the Royal College of Physicians (chairman), Dr. Mervyn H. Gordon, and others.

BELGIUM

(From Our Regular Correspondent)

March 6, 1926.

Radium Therapy in Cancer of the Cervix Uteri

Addressing the Société belge de chirurgie, Dr. Delporte summed up his opinion on treatment of cancer of the cervix as follows: "The Wertheim operation was the first step toward the proper treatment of cancer of the cervix. Irradiation constitutes the second stage. Today radium therapy should replace surgery." With respect to the Wertheim operation, he states that (1) 43 per cent of the cases are operable, while 60 per cent of the cases are abandoned; (2) there are difficulties of technic; (3) the operative mortality is from 10 to 15 per cent; (4) cure of operable cases, after five years, results in from 30 to 45 per cent, and (5) 60 per cent of the inoperable cases are abandoned. From the standpoint of radium therapy, however, he observes that (1) all cases are treated; (2) there is no technical difficulty; (3) there is no primary mortality; (4) cure of operable cases, after five years, results in from 30 to 40 per cent, and (5) cure of inoperable cases, after five years, in from 10 to 14 per cent.

Deep Irradiation with Gamma-Rays

Before the Société belge de gynécologie and the Société de physiothérapie, Dr. Sluys recently exhibited new radium applicators that obviate irradiating the skin unnecessarily. The radium is enclosed in lead capsules, thus restricting the direct cone of rays and absorbing the lateral rays that cause the surface tissues to receive a useless overdosage. This method makes it possible by means of crossfire irradiation to apply to the deeper tissues a summation of fairly large doses of radium without injuring the skin unduly, owing to the fact that the portals of entry do not overlap. The increased distance of the tubes requires considerable doses of radium. The appliance is adjustable to the region to be irradiated and the position of the patient. It is attached to an *appareil moulé* which arrests the secondary rays, aids in localizing the region to be irradiated, and makes it possible to measure the amount of irradiation.

Lingual Neuritis

Dr. Polus has communicated to the Société belge de stomatologie several cases of pain in the back and tip of the tongue. In all he found an infected lower wisdom tooth. Extraction of the tooth effected a cure in four to eight weeks.

Government Control of Mineral Waters

The Société belge d'hydrologie et de climatologie médicale has prepared a prospectus in which it defines natural and artificial waters. It suggests that every enterprise having for its object the collecting, exploitation, treatment, production and sale of drinking waters and mineral waters should be subject to government authorization. Such authorization should be dependent on the chemical analysis, bacteriologic examination, physical and chemical properties, location of the source, and conditions under which the water is collected. Furthermore, the trade name may not be identical with that of any other water already authorized in Belgium. A water may not have a geographic name unless a second name is added. Containers must bear labels showing the contents, whether natural or artificial water. Natural waters shall be understood to mean only waters that are offered for sale in the condition in which they are furnished by nature. Artificial waters which contain added substances must be so labeled and may be sold only by pharmacists. Two kinds of natural waters must be distinguished: (1) medicinal waters and (2) table waters. A special commission, serving under the Conseil supérieur d'hygiène, will supervise enforcement of the regulations.

Surgical Treatment of Varicose Veins

At a recent meeting of the Société belge de chirurgie, Dr. De Beule stated that he had employed all the surgical forms of removal of varicose veins, and that at present he is using sclerosing injections. De Beule employs mercuric iodide or sodium salicylate. A simple procedure is first to ligate the internal saphenous vein, which allows the injection of a greater quantity of liquid. De Beule injects sometimes as high as 15 cc. of a 20 per cent solution. The procedure makes it possible to distribute the liquid throughout the whole extent of the vein. There have been no untoward results in about sixty cases. The patient should stay in bed for a week, and the leg should be provided with a tight-fitting bandage, as in the treatment of phlebitis.

ITALY

(From Our Regular Correspondent)

Feb. 28, 1926.

International Congress of Surgery

The seventh International Congress of Surgery will be inaugurated in Rome, April 7, with Professor Giordano, senator, and surgeon of Venice, in the chair. The following subjects will be discussed: Radium therapy in uterine cancer, by Bentner, Geneva; Donaldson and Fosdick, London; Pestalozza, Rome; Recasens, Madrid, and Regaud, Paris. Abscess of the liver, by Dominici, Sassari, Italy, and Petridis, Alexandria, Egypt. Therapy in cerebral tumors, by Adson, Rochester, Minn.; Bastianelli, Rome; Brun, Lucerne; De Martel, Paris; Lozano, Saragossa, and Percy Sargent, London. Surgery of the spleen, by Cortes Llado, Seville; Henschen, Saint Gallen; Leotta, Bari; Papagannon, Ghezireh, and Ratel, Lyons. An exhibit of sanitary equipment will be held at the congress.

Society for the Study of Tuberculosis

The Società di studi sulla tubercolosi, founded by the Società di medicina interna following the congress of Padua, will hold its first congress in Milan in October. The main theme on the program, "Pneumothorax in the Treatment of Pulmonary Tuberculosis," will be treated by Professors De Bonis of Naples and Carpi and Ronzoni of Milan.

Defense Against Malaria

At a meeting of the Accademia dei Georgofili, held in Florence, March 7, Prof. Giacomo Del Guercio read a paper entitled "A Contribution to the Study of the Defense Against Malaria," in which he communicated researches on a microorganism that opposes malaria. This microbe attacks not only the adult parasite but also the larvae and nymphs found in the water.

A Celebration in Memory of Maurizio Bufalini (1787-1875)

In celebration of the fiftieth anniversary of the death of Maurizio Bufalini, who may be regarded as the founder of modern Italian medicine, Cesena, his native city, held, December 20, a procession which deposited a wreath on Bufalini's monument and a formal gathering at which the ideas of the master were set forth by various speakers. In memory of the occasion a monograph by Prof. Augusto Murri, a pupil of Bufalini, pointed out the master's importance as an educator of physicians. A memorial by Professor Cardi also demonstrated Bufalini's ideas with respect to the medical curriculum.

An Historical Institute of the Art of Healing

The Istituto storico italiano dell' arte sanitaria was established, some time ago, and has for its object the collection and display in a special museum in Rome of material pertaining to the healing art. The important collections belonging to the Museo Flajani in Rome have already been transferred to the new institute, and further valuable material will be contributed by the civil hospitals of Turin, Vercelli and Alexandria, and by the war department. The minister of the interior has urged the prefects of the realm to induce hospital administrations and health societies in their districts to contribute material.

Recognition of War Service in the Adjustment of Pensions of Health Officers

According to a recent decree which increases pensions of health officers, every war campaign is reckoned as a year of service, and the dues that those insured in the Cassa di previdenza (government insurance fund) would otherwise pay are remitted for a corresponding length of time.

A Biennial Hygienic and Health Exhibit

The governor of Rome is considering founding in that city a biennial hygienic and health exhibit, which will serve as a clearing-house for the innovations of the various nations and regions of Italy that take part. Each successive exhibit will be directed toward a different branch of hygiene and sanitation.

The Antigoiter Crusade

Prof. Giuseppe Sangiorgi, director of the hygienic institute of the University of Parma, has recently conducted a scientific inquiry on goiter in Piedmont, a region of Italy in which endemic goiter is prevalent. The inquiry has proved that the contributory causes usually invoked, such as syphilis, alcoholism and consanguineous marriages, are of little or no significance in the genesis of hyperthyroidism. It has also confirmed that cretins ordinarily develop symptoms soon after birth, following an attack of sickness. A point of contact with Brazilian trypanosomiasis confirms Professor Sangiorgi in the hypothesis that cretinism may be a parasitic disease. And since the surroundings in which cretins live are usually unhygienic, their dwellings being often mere shacks, Professor Sangiorgi urges that the authorities improve the dwellings in affected regions as a prophylactic measure. For a number of years past, iodized chocolate wafers have been distributed to the school children in certain districts of Piedmont. The practice has now been extended to the whole civil population by means of table salt containing 1 Gm. of potassium iodide per hundredweight of salt.

NETHERLANDS

(From Our Regular Correspondent)

March 6, 1926.

Working Hours of Nurses

There are still some institutions in which the working day for nurses comprises eleven or even eleven and a half hours. Persons most concerned recently voted to address the government with a demand for regulation.

The Crusade Against Frambesia in the East Indies

Dr. Winckel, public health officer in Java, spoke recently at The Hague on the crusade against tropical frambesia in the Dutch East Indies. During the period 1919-1924, more than a million injections were given, for which 500 Kg. of neo-arsphenamine was used. In some regions, the disease may be regarded as completely eradicated.

The Milk Question

Dr. Van Leersum has been carrying on a campaign through the daily press to obtain better milk service. There is an increasing demand on the part of the public for untreated milk. The only way to supply safe untreated milk is to secure good hygiene at the point of production and all along the line. The only efficient method would be to instruct the working personnel in the same manner that we instruct the

personnel of an operating room. It is easy to develop such a project without appreciably adding to the cost. Professor Van Oven, in an article in the *Tijdschrift voor Diergeneeskunde*, gives an account of the organization created at Reading, England, where everything seems to be functioning satisfactorily.

Attempted Merger of the Health Insurance Societies

A movement was recently launched to bring about a merger of the health insurance societies of the Netherlands and to centralize their organizations and administrations. The movement proceeded so far that a commission was appointed to represent the principal existing societies. The physicians chosen to serve on the commission were members of the Nederlandsch Maatschappij tot Bevordering der Geneeskunst, and represented, respectively, the general practitioners and the medical specialists. There are at present an almost countless number of health insurance societies. Some organizations count their membership by the tens of thousands, while many smaller societies have only a few hundred members. Each society, however, must have a complete organization. An enormous waste of effort and money is thereby involved. To lessen the waste of energy it was proposed to substitute one immense organization for the present infinite number of small societies. At first sight, the project seemed acceptable; but by such a plan one society would have almost absolute power. This would constitute a grave danger for the medical profession, which consequently has become opposed to the project.

Smallpox, Alastrim and Vaccination

Under the chairmanship of Prof. Ricardo Jorge, an international commission composed of members of the health section of the League of Nations met recently at The Hague to study the questions of vaccination, smallpox and alastrim. The commission sent a questionnaire to all organizations that prepare smallpox vaccine, in order to learn the different methods employed in titration of the lymph, thus looking toward the adoption of a universal standardized method. The commission will also inquire into cases in which disorders of the central nervous system have followed vaccination. These cases, though very rare, in view of the immense number of vaccinations performed, are deserving of careful study. The commission has also appealed to the health section of the League of Nations in order that the cooperation of all the nations concerned may be secured.

The Press and Public Health Propaganda

Owing to the cooperation of all the public services and with the aid of certain private persons whom Dr. Josephus Jitta has interested in his plan, communications of the health council will be sent to all the journals and reviews that have consented to aid the new plan of disseminating information on health topics through the public press.

Tuberculosis Among Teachers

In the *Tijdschrift voor sociale Hygiene*, M. Putto has launched a campaign for medical supervision of members of instructional corps. The dangers to which pupils may be exposed by a tuberculous instructor would indicate that all instructors in schools should be required to submit to periodic physical examinations.

Care of Psychopathic Invalids

A committee has recently been formed, consisting of medical psychiatrists, for the purpose of studying the question of what constitutes proper training of nurses who are to care for psychopathic invalids. It will endeavor to determine what mode of instruction, what kind of education, and what qualities of character and disposition are best fitted for work of that kind. It will consider also the question as to what groups of psychopaths are in need of the care of such personnel. Also the organization, the enlistment and the salary schedule of the personnel will be discussed.

BUENOS AIRES

(From Our Regular Correspondent)

March 1, 1926.

Llama Syphilis Serum

In previous letters, reference has been made to the claims of Drs. Lancellotti and Jauregui as to the discovery of a curative serum for syphilis. The lay press exploited the matter and even announced it as a national achievement. Only a few weeks ago, pictures appeared in the newspapers of the 100 llama herd imported for the preparation of serum. The medical societies, however, could get no definite information on these studies. Drs. Lancellotti and Jauregui asked Dr. Chabroux to verify the effectiveness of their serum. Dr. Chabroux has now published in *La Semana Médica* his first report. Lancellotti and Jauregui stated that the serum from immunized llama rendered a negative Wassermann test. The serum placed in Chabroux' hands showed a positive test. Lancellotti and Jauregui claimed that they had secured splendid results within from six to twelve days in confluent patches and ulcerated papules, after previous treatments had failed. Chabroux did not see any improvement in such cases, but on the contrary, there were recurrences during treatment, even when using a dose three times as large as that originally advised. The Wassermann test did not become negative, and the action on mucous lesions proved short lived. After the serum had failed so signally, neo-arsphenamine made the lesions disappear and changed the Wassermann test to negative.

Medical Entomology

The recent and untimely death of Dr. Juana Petrocchi, already noted for her entomologic work, left vacant the position of chief of the entomologic division of the national department of health. Through the agency of the Rockefeller Foundation, Mr. William Shannon, an American, has been appointed to replace her. Dr. E. del Ponte will aid him in his studies of insects as disease vectors. Dr. del Ponte is at present engaged in a study of Chagas' theory that anopheles are really domestic insects, as the verification of this fact is important in prevention work.

Foreign Experts

The national department of health and the Clinical Surgery Institute (headed by Professor Arce), have engaged Prof. G. Fichera of Italy to take charge of pathologic work in both institutions.

The Rosario Medical School has also sent for Prof. G. Viale, a young man recently appointed at Sassari, to direct its well equipped physiologic laboratory. It seems strange to go abroad in order to fill such places, when there are two large institutions of this type in Buenos Aires, where a number of young men have been trained and have gained prominence. Many argue that a system of fellowships abroad is preferable to importing experts. The latter method has been tried here for many years, with results far from satisfactory.

The national department of health has also tendered the position of inspector of local laboratories to Prof. R. Kraus, the former director of the National Bacteriologic Institute.

Malaria

New antimalaria stations have been opened at San Lorenzo, Salta, and Tafí Viejo, Tucumán. Antimosquito work is being continued at Jujuy, Salta, Famaillá and Monteros, and is just being started at Aguilares, Tucumán. Dr. Amarante, the chief of the malaria division, has gone to Catamarca, to con-

sider extending the work to that district. In addition to his studies of anopheles, Dr. del Ponte is studying the comparative value of several larvicides, including paris green.

Tuberculosis

The Argentine League Against Tuberculosis has opened a new sanatorium and dispensary at Rosario, whence a large region can be reached. The funds for the purchase of the building were a gift of Dr. Bartolomé Vassallo.

Externs

After a number of difficulties, hospital internships were discontinued about a year and a half ago. Now the Public Assistance has suggested that the Buenos Aires Medical School should take the responsibility of appointing the 291 "externs" who must serve in the hospitals.

Trachoma

For a number of years, ophthalmologists have pointed out the increasing number of foreigners with trachoma, especially Italians, Spaniards and Syrians, appearing at dispensaries. After a long neglect of prevention measures, all trachomatous immigrants are now refused admission, the steamship companies being required to repatriate all such cases. The disease has been controlled through a vigorous campaign in the capital. In addition to the hospital outpatient departments, the national health department has opened a special trachoma clinic in charge of Drs. A. Barbieri and E. de la Vega. The disease has spread in certain extensive zones in the provinces of Santiago del Estero, Tucumán and Jujuy; but an active campaign is already in progress.

Prizes

Through Dr. S. Dessy's efforts, a fund has been collected to institute a Guido Banti memorial prize in pathology. Awards will be limited to Argentine or Italian medical students.

The Argentine Biological Institute is offering an international prize, amounting to 1,000 pesos (about $400), for the best experimental work on bacteriology, biochemistry or endocrinology.

Postgraduate Studies

Dr. Valls has completed his postgraduate course in orthopedics at the Rizzoli Institute in Bologna. Dr. Dellepiane Rawson will now follow him.

After completing at Torino and Berlin the followships in physiology and physical chemistry granted by the Argentine Biological Institute and the Buenos Aires University, Dr. E. Hug has returned home.

Dr. R. Finochietto has left for Europe to inspect cripples' rehabilitation institutions.

Dr. Diez has also left to look into recent developments in nerve surgery.

Dr. Nierenstein has been granted a fellowship by the Buenos Aires University.

After spending some time in biochemical laboratories abroad, Dr. C. T. Rietti has returned to Argentina.

The Rockefeller Foundation has been requested to extend the fellowships granted to Drs. M. Balado (experimental surgery) and J. T. Lewis (physiology).

Medical Congresses

The fourth South American Conference on Hygiene, Microbiology and Pathology will be held at Buenos Aires, July 8-18. The committee in charge consists of Dr. G. Araoz Alfaro, president; Drs. D. J. Cranwell, A. Sordelli, M. V. Carbonell, F. A. Justo, A. Bachmann and B. A. Houssay, vice presidents, and Drs. A. Zwanck and S. Mazza, secretaries. The arrangements for the meeting on medical education have been placed in the hands of a committee composed of D. J. Cranwell, president; B. A. Houssay, P. Chutro, A. Lanari and J. Iribarne, vice presidents, and O. Loudet and V. A. Fiori, secretaries. Foreign committees have already been organized in Brazil, Chile, Paraguay, Peru and Uruguay.

In August, 1926, the first Argentine Surgical Congress will be held. The officers appointed are: D. J. Cranwell, president; L. M. Allende, E. Belaustegui, A. Ceballos and M. Ruiz Moreno, secretaries.

New Journals

The *Archivos Oftalmológicos de Buenos Aires* is already in its third issue. The editor is Dr. R. Argañaraz, assisted by Drs. H. Rebay, E. Adrogué, Lijó Pavía and thirty-six collaborators.

Prof. C. Bonorino, with a select group of collaborators, either clinicians, surgeons or radiologists, has started publication of *Archivos de Enfermedades del Aparato Digestivo y de la Nutrición.*

Dr. Molina's Death

February 16, Dr. S. Molina died. In addition to being the dean of the Argentine medical profession and a former director of the Rivadavia Hospital, he was also the real pioneer in modern obstetrics, and filled the first obstetric chair in Argentina.

BERLIN

(From Our Regular Correspondent)

March 20, 1926.

The Düsseldorf Exposition

The Düsseldorf exposition, which will open, May 8, will cover an area of 400,000 square meters and will deal with health culture, social welfare and physical education, thus fulfilling the same purpose as "Health Week" (THE JOURNAL, April 24, p. 1304). The exposition buildings, the more important of which will be permanent structures, will have a total area of 12,000 square meters. According to the announcements of Geheimrat Schlossmann (Düsseldorf), who is the director of the exposition, a more or less prominent part in preparing the proposed exhibits will be taken by the federal insurance institute for employees *(Reichsversicherungsanstalt)*, the leagues of the health insurance societies, the trade unions, the provincial insurance institutes, the ministry of federal defense, the institute of tropical hygiene (Hamburg), the Hygienic Museum of Dresden, the International Red Cross, the health commission of the League of Nations, the several states of the German federation, numerous large cities, the leagues of the welfare societies, and numerous care-taking centers. The comprehensive exhibit that will be grouped under the name "Home and Settlement" will give a survey of modern fire-fighting equipment, water systems, sewerage systems, building construction, gas and electric installation, heating and ventilation, food, condiments, beverages and clothing. In the exhibit "Sport and Physical Education," the visitor will find sport and gymnasium equipment of all kinds, from a large sailing yacht down to a football, a modern gymnasium, plans and models of modern athletic grounds, and, above all, a survey of aeronautics. In the preparation of the exhibit "Care and Treatment of the Sick," the universities, the Akademie für praktische Medizin and numerous special clinics have collaborated in the presentation of the results of their modern researches. The German spas and health resorts also have a special exhibit. Another exhibit that promises to be particularly interesting bears the designation "Man in His Hygienic Relations to Plants and Animals," which affords a survey of the science and technic of modern agriculture. Of the special buildings, those that are of interest are the physicians' building, the women's building, the Austrian building, and, finally, the Düsseldorf building, in which this city on the Rhine, justly famous for its art, its gardens and its industries, presents a miniature likeness of itself.

Causative Agents of Cancer

Professor van Calcar in the Netherlands and also Dr. Schumacher, microbiologist of Berlin, have recently reported discoveries of "new causative agents of cancer." In an article in the *Deutsche medizinische Wochenschrift*, Professor Blumenthal, director of the Berlin Institute for Cancer Research, refers with considerable skepticism to the alleged findings. I quote from his article as follows:

Van Calcar regards the protozoa that are found in oats, barley and other grains, worms, bugs and insects, as the causative agent of cancer. In previously moistened grain, which he exposes to the air and allows to dry, he enriches the protozoa and asserts that with such fluid, which, in addition to protozoa, contains also bacteria, he has produced cancer in dogs. He maintains further that these protozoa pass through an invisible stage, for which reason they are not seen, in spite of the fact that they are associated in symbiosis with the cancer cell. From human cancer tumors he cultivates the protozoa in the following manner: He allows decoctions of barley and oats prepared with sterilized water, into which he has deposited pieces of cancer tissue, to stand in nonsterile vessels. After twenty-four hours he removes the covers and leaves the vessels open until the contents have evaporated to dryness, whereupon water is added. In this fluid he finds fusiform, tremulous protozoa, which he designates as causative agents of cancer. This fluid but not isolated protozoa, was fed to, or injected into, dogs whose gastric secretion had been eliminated or in which burn blisters had been elicited. The gastric secretion was eliminated because, according to Calcar's view, achylia gastrica creates a disposition to cancer. It is alleged that nodules developed in the gastro-intestinal tract (or at the site of the injections) which were, for the most part, very small. In one instance, a larger tumor was found, which, to judge from the illustration, may possibly have been a true cancer. There is no reference to any attempts to discover whether or not the alleged tumors could be transplanted. Many things, especially the method, remind one of Feinberg's experiments many years ago. Calcar maintains that endeavors to produce tar cancer in mice fail utterly if the tar is applied to a region practically free from protozoa. Even if we assume that Calcar did succeed in producing cancer in dogs, it does not necessarily follow that the tremulous protozoa noted in the open fluid were the causative agent. It is equally likely that an invisible virus instituted the offensive. In any event, it cannot be admitted that Calcar's experiments justify his far-reaching conclusions.

As to Schumacher, he was unable to isolate his causative agent of cancer from the cancer tissue, for which reason he could not test it to ascertain whether or not it could produce tumors. The evidence adduced for the existence of the alleged causative agent is based solely on the facts that Schumacher was unable with the ordinary stains to demonstrate the presence of parasites but that when he used a certain method, as yet undivulged, but which included staining with Victoria blue, he demonstrated in the connective tissue at the margin of the cancer and at the dividing line between the diseased and the healthy tissues, with a magnification of 60, large S-shaped, wide, blue markings in such large numbers that they occupied a tenth of the marginal space about the cancer. He declares, without further investigation, that these formations constitute the causative agent. It is very doubtful whether the stained markings that Schumacher describes represent living organisms at all. It is quite possible that they are merely tissue components. A living organism of such size and existing in such great numbers ought to be visible in dark field illumination. Schumacher's communication does not, therefore, seem to me to furnish a basis for further discussion.

Society Proceedings

MEDICAL SOCIETY OF THE STATE OF NEW YORK

One Hundred and Twentieth Annual Meeting, held at New York, March 30-April 1, 1926

Fracture Dislocation of the Neck

DR. ALFRED S. TAYLOR, New York: The number of fracture dislocations in the cervical spine seems to be increasing with each succeeding football season, and each summer also furnishes its toll of similar serious injuries from diving accidents. The bone lesion is usually of relatively minor importance. The seriousness of the injury depends entirely on the injury of the nerve tissues involved. The aim of treatment must be to restore the nerve structures to as near normal as possible. The first principle of treatment is not to manipulate the patient. The second principle is to restore proper anatomic relations of the various injured structures as far as possible. The third principle is to apply fixation apparatus which shall reach from the iliac crests upward to the chin and occiput, and which shall cause some elongation of the cervical spine as well as slight backward extension. The principle of the method I employ consists of controlled traction exerted on the head (with countertraction on the lower extremities) until the spasmodically contracted cervical muscles have relaxed sufficiently to permit reduction by bimanual manipulation on the part of the operator. Fixation is maintained by a plaster jacket encasing the trunk and neck. This jacket is kept on for three or four weeks; then a spinal brace with jury mast and cupped arrangement to fit and hold up the chin, jaw and occiput are used. Open operation in the acute stages of these injuries, because of the handling necessary to posturing the patient on the table and returning him to bed, involves great risk of added injury to the cord. The removing of the arches takes away a large part of the remaining stabilizing apparatus at the site of injury. In the old cases, in which it is impossible to get a good reposition, the only thing to do is to put on a fixation apparatus for a sufficient length of time so that the spine will become solidly ossified in its position of deformity.

DISCUSSION

DR. FOSTER KENNEDY, New York: I was associated with Dr. Taylor in two cases in which this method was used. Besides immediate result in the bone reduction, there was tremendous improvement in the cord symptoms.

DR. HENRY KELLER, New York: I have seen three cases which illustrate that one cannot tell by the symptoms the extent of the injury. Two were cases of complete fracture dislocation, one of the third, the other of the fourth cervical. One patient presented no symptoms at all. The only suspicious sign present was the fact that the child walked in with the head down, chin on the chest. The roentgen ray showed complete fracture dislocation of the third cervical. Hence, it is very important in every case of injury of the neck region to make a roentgen-ray examination.

Ventriculometry

DR. K. WINFIELD NEY, New York: The value of ventriculometry lies not only in definitely determining the increase in intracranial pressure, but also in accurately measuring the degree of this pressure. The normal intraventricular pressure is approximately the same as the pressure of the spinal fluid, namely about 8 mm. of mercury. Pressures have been recorded from 0 to 65 mm. of mercury. The lower pressures are mostly in the after-effects of cerebral vascular thromboses, and certain types of epilepsy and dementia praecox. Higher types are in encephalitis, 65 mm.; the so-called communicating type of hydrocephalus in adults, from 40 to 60 mm.; cerebral tumors and abscesses, from 25 to 35 mm., and congenital hydrocephalus, from 8 to 40 mm.; hydrocephalus due to posterior fossa tumors, from 15 to 30 mm.; chronic brain injuries showing post-traumatic neuroses, from 16 to 22 mm. Tapping the posterior horns of the lateral ventricle for pres-

sure determination is a safe procedure with considerable less discomfort than spinal puncture.

Diagnosis and Localization of Brain Tumors

DR. WALTER E. DANDY, Baltimore: There are few, if any, tumors which should not be diagnosed and precisely localized by the use of air injections if other means fail. Air injections should be used only when the necessary information cannot be obtained from neurologic examination. They are also used to exclude tumors if there is a question of doubt as to the diagnosis. The method is not harmless. If it is not used correctly, it is one of the most dangerous tests employed for diagnosis. If it is used correctly, there is no danger. For the last six years we have not had a single death, and when judiciously used, there can be very few, if any, symptoms produced. If correctly used, it can make a localization of practically all brain tumors.

DISCUSSION

DR. S. PHILIP GOODHART, New York: This method of localization of brain tumors offers the only opportunity for therapy in neurology. The merits of this diagnostic method are universally conceded. We are beginning to hear reports that are very favorable. Recently, Grant of Philadelphia presented an analysis of 400 cases in which he states that the diagnosis was practically made in 80 per cent by Dr. Dandy's method of localization, and in 30 per cent by that method alone. In that series of cases, 50 per cent of the patients were operated on successfully. This method is also a great help in that hitherto baffling situation in which the symptoms indicated tumor, there being a tremendous amount of intracranial pressure, and the operation revealed practically nothing. Many such cases are due to inflammatory processes.

DR. CHARLES A. ELSBERG, New York: While the technic of air injection is simple, the manipulation of the head after the air has been injected is not so simple. Sometimes the air will not pass from one lateral ventricle into the other as it should, if the side into which the air was injected is down, so that the air can rise through from the foramen of Monro into the other side. The method is not simple when it comes to obtaining good ventriculograms, or in their interpretation. Every once in a while it is difficult to say from the ventriculograms with real certainty exactly where the tumor lies, so that there are some patients in whom even ventriculograms will not lead to a positive localizing diagnosis. In such cases, repeated injections of air may be necessary with pictures taken in various positions, study of the ventricles by injections of dye into one or both of them, etc. One must not arrive at the conclusion that with this method of diagnosis all infiltrating tumors can be removed. By no means. While the method does help and is extremely valuable, it has not yet solved for us all the problems of infiltrating tumors of the brain. Ventriculography has been a tremendous step in advance; I am becoming more and more enthusiastic as to its use, but the ideal has not yet been reached. The ideal will be attained when an absorbable fluid impervious to the roentgen ray, and not toxic, will be discovered which can be injected into the ventricles; with one stereoscopic roentgenogram we shall then obtain all the information needed, and we shall not be obliged to have roentgenograms taken in various positions, and shall not have to depend on the passage of air from one ventricle into the other.

DR. ISRAEL STRAUSS, New York: The neurologist can probably localize about 70 per cent of the neoplasms of the brain. Without this method he would be at a loss. With it, properly applied, his diagnosis in localization ought to be absolute. This method cannot be utilized by an assistant injecting air into the ventricle, and another assistant taking the patient to the roentgen-ray department and then the radiologist attempting to interpret the results. It is a one-man method. It requires the attention of the surgeon in every phase, and that is where the difficulty has arisen. It means a great deal of experience in the interpretation of what one finds, and a great knowledge of anatomy and pathology. Dr. Ney's work is of a great deal of importance, for the reason that, with the determination of the ventricular pressure, it becomes unnecessary to resort to the injection of air. The information obtained by recording the size of the ventricles may be sufficient in conjunction with the neurologic signs to make a diagnosis and a localization.

DR. K. WINFIELD NEY, New York: There can be no question regarding the value of ventriculography in the localization of brain tumors, but the technic must be mastered and followed.

DR. WALTER E. DANDY, Baltimore: I think I have probably given the wrong impression about the number of cases in which air has actually been used. Three or four years ago we published a method called "ventricular estimation" from which we could get practically the same results as from actually seeing the ventricles thrown on a photographic plate. In many cases, ventricular estimation has been used instead of the actual injection of air. Localizations and diagnoses so made are included in the estimate of one third of brain tumors requiring air injections.

Cholecystography by the Oral Method

DR. WILLIAM H. STEWART, New York: For cholecystography by the oral method we are using tetraiodophthalein obtained in sealed colored ampules, a single dose in each, which has overcome the deterioration question. The method is simple and efficient. Some authors have claimed there is more reaction following the oral than the intravenous injection, but this has not been our experience. We have either had no reaction, or a slight nausea or one or two loose movements. When a reaction occurs, it does not incapacitate the patient. We do not admit that the oral method is less valuable than the intravenous. We take exception to the statement that the oral method should be checked with the intravenous. The examination is not simple. It requires a patient who is intelligent enough to suspend respiration during the making of the films. One of the most important phases of the Graham test is in the deduction of a disturbance of the function of the gallbladder. One important use of the method of visualization of the gallbladder is the differential diagnosis between nephrolithiasis and cholelithiasis. It is much simpler to carry out the gallbladder technic than to outline the kidney pelvis and calices by pyelography.

DISCUSSION

DR. LESTER LEVYN, Buffalo: Many roentgenologists have abandoned the intravenous method because it is generally followed by varying degrees of reaction. Technical difficulties are frequently encountered. The danger of injuries to the peripheral vessels is a serious one. Bacterial contamination is possible, and certainly it is not to be recommended as an office procedure. Hanzlik has shown definite changes in the physical characteristics of the blood as the result of various types of intravenous medication. These reactions are not encountered when the dye is administered by mouth. Slight nausea or occasional vomiting may occur, but never a severe reaction. If comparable results may be achieved by the oral method, why subject patients to the discomforts and dangers of intravenous injections, except in occasional cases in which visualization is not obtained after at least two oral attempts have been made? In the majority of cases, practically 80 per cent, the oral method is successful. Our percentage of visualization with keratin coated capsules has not been as high as Dr. Stewart's. We give the dye in a number 0 capsule inserted in a number 3 capsule which contains sufficient sodium bicarbonate to cover completely the dye contained capsule. In this manner we have found that the greatest amount of protection against the acid gastric juice is obtained and more soluble dye is available for absorption than by any other product. The accurate interpretation of cholecystography will be arrived at only by collaboration between clinician and roentgenologist.

DR. MERRILL C. SOSMAN, Boston: We have a record of 400 cases studied by the oral and 200 by the intravenous method. The obvious difference in the two methods is this: In the oral method an unknown amount of the dye is absorbed, while in the intravenous method a known quantity of salt is put into the blood which must come through the liver to the gallbladder. We have found the intravenous method much more accurate than the oral method. With the intravenous method we have had 93 per cent of cases proved by the sur-

geon and the pathologic report, as against 80 per cent with the oral method. Of 113 cases in which operation was done, the diagnosis was confirmed in 105. As a further check on the oral method, fifty-six patients who showed no shadow by this examination were subsequently given the intravenous test. In only forty-one of them were the findings confirmed, an accuracy of 73 per cent. Likewise, in forty-three medical students, oral examination gave normal shadows in only thirty-three, and faint shadows in the remaining ten. We use the oral method in ambulatory cases and accept the results showing normal shadows or stones. The others we confirm or disprove by the intravenous method.

DR. ISRAEL O. PALEFSKI, New York: Dr. Stewart, I fear, places too much dependence on the results of the oral method. Employing the same method of preparation of the dye capsules and observing the same precautions as he does, I found a large group of patients in whom the dye failed to reach the liver and the gallbladder in sufficient quantities to permit accurate clinical deductions. The oral method often failed us in the crucial cases. Its present vogue is undoubtedly based more on its simplicity of application than on its accuracy. Conclusions based on this method should be stated reservedly. On the other hand, I see no objection to the intravenous method, if performed properly. It is unfortunate that the unpleasant consequences that followed the intravenous tetrabromphenolphthalein procedure should be unduly attributed by some observers to tetraiodophenolphthalein without giving it sufficient trial. The general reaction, if any, is certainly less than after the oral method. As a rule, there is no reaction after a dose of from 2 or 2.5 Gm. of tetraiodophenolphthalein dissolved as a 5 per cent solution in distilled water and introduced by means of a 50 cc. finger holed syringe. The intravenous method is not only labor saving, as it usually requires one examination, but is accurate in determining the patency or nonpatency of the cystic duct, the main feature of importance in cholecystography.

DR. LOUIS LEFRAK, New York: It is my opinion that Graham and his associates have put before us a Pandora's box of troubles. The technical difficulties, great as their number are, will probably be shortly overcome, but the interpretation of the gallbladder shadows will tax the patience of all of us. The normal gallbladder will have to be discovered before we can describe the pathologic organ in all its ramifications.

DR. WILLIAM H. STEWART, New York: We concede that the oral method is not more accurate than the intravenous method, but we believe we can get the same information by the administration of the dye by mouth as by the intravenous injection. We have given up the intravenous method. It has been very discouraging. The first thing is the severity of the reaction; in some instances we almost lost the patient. Another ill effect is a very severe sloughing from a drop of the solution getting into the soft tissue; this occurred more than once. Another thing that may happen is phlebitis.

Muscle and Nerve Injuries Associated with Fractures

DR. DEAN LEWIS, Baltimore: Nerve and muscle injuries associated with fractures are relatively rare, but they so prolong the disability that they demand early recognition and intelligent therapy. In 80 per cent of the nerve injuries, the humerus is the bone that is fractured, the common site of the fracture being in the lower third of the bone (60 per cent). Of the peripheral nerves involved, the musculospiral accounts for 60 per cent and the ulnar nerve for about 25 per cent. Many of the latter, however, are late paralyses. Next in order of frequency are injuries of the median nerves associated with anterior displacement of the lower end of the upper fragment of the humerus, and dislocation with displacement forward of the carpal bones. Isolated injuries of different nerves are observed, but the musculospiral, ulnar and median are the nerves most frequently injured. Injuries of the musculospiral nerve with fractures of the surgical neck are uncommon. The nerve is well protected at this point. Injuries of the musculospiral are most common with fractures of the middle of the shaft and supracondylar fractures in which the upper end of the lower fragment is displaced outward. In the spiral fracture through the middle of the shaft, the upper end of the lower fragment is frequently displaced outward and the musculospiral nerve is first contused and then stretched over the fragment. In some of the fractures through the lower third of the humerus, the musculospiral nerve seems to be torn at its most fixed point, just above the origin of the deep branch. This type of injury is uncommon; but when an injury of the nerve is not found at the site of the fracture, it is well to explore the nerve in the antecubital fossa. Ulnar nerve injuries may be associated with fractures of the internal epicondyle and condyle and supracondylar fractures. The most interesting ulnar injuries are those in which the symptoms develop late. A history is given of injury of the elbow in childhood followed by good recovery of function. Later, varying from ten to thirty or forty years, definite symptoms of ulnar nerve palsy develop. This late ulnar palsy is most frequently associated with a cubitus valgus due to an ununited fracture of the external condyle. The deformity, a prominent internal condyle, with a cubitus valgus and impaired extension, should suggest at once a late ulnar palsy. Many have been diagnosed cervical rib, syringomyelia, etc. Injuries of the median nerve are frequently overlooked, for the disability following median nerve injuries is slight, consisting of the inability to flex the index finger, to use the opponents and flexor longus pollicis.

Ischemic myositis (Volkmann's contracture) is one of the most disabling lesions associated with fractures. It is observed most frequently after supracondylar fractures and fractures of the lower end of the femur. It is caused by venous congestion. About 18 per cent of the cases of ischemic palsy occur without a cast or constricting dressing having been applied. The importance of the subfascial hematoma in the production of ischemic palsy has not been fully appreciated. In cases with marked swelling and induration of the antecubital fossa, no attempt at reduction should be made—no dressing applied. The internal pressure due to the hematoma should be released. Incision of the fascia with evacuation of the clot is advisable. The mild cases may be cured or greatly improved by elastic traction and massage; but if the greater part of the contractile substance has been destroyed, operation is of little avail, for lengthening of tendons or muscles is of no avail if the contractile substance has been destroyed. A fracture should not be considered merely as a fracture, but a careful examination should be made for associated injuries of nerves, muscles and blood vessels.

DISCUSSION

DR. WILLIAM DARRACH, New York: I should like to emphasize what Dr. Lewis has said about the possible cause for ischemic paralysis; that is, what we have been calling a pressure from within as distinguishd from pressure from without. A number of cases are on record in which this condition has developed without any constricting pressure from bandage or acute flexion, which can be explained only by some internal cause. In the study of nerve injuries complicating fractures, the most important thing is to emphasize the wisdom of establishing at the first examination the question as to whether the nerve has been injured or not. I know of no more embarrassing situation than to find after the third or fourth examination that a nerve injury exists, and to be uncertain whether the nerve injury was due to the fracture or to attempts at reduction of the fracture. It is surprising how quickly a return of function will sometimes occur in a nerve that looks to be severely injured at the time of operation. The association of nerve injuries with carpal injuries is of importance. Another point is in regard to the late manifestations of ulnar nerve injuries with elbow fractures. That is an illustration of how unreliable the statistics of any one person are. Dr. Lewis stated that he thought ulnar nerve lesions were common because he had seen fifteen of them. I have only seen one. Because one man is especially good at treating these conditions, he gets all the cases, and thinks that their occurrence is more common than it really is. They are tremendously important, but I do not believe that they are very frequent,

DR. EMIL GOETSCH, New York: Our commonest nerve lesion with fracture and dislocation has been the median

nerve injury due to dislocation of the scaphoid. Another type that has not been mentioned is injury to the circumflex nerve after an impacted fracture of the neck of the humerus. We had one case of musculospiral palsy due to fracture of the shaft of the humerus near its middle and one of musculospiral palsy from a supracondylar fracture of the humerus. In one case the median nerve was involved in the forearm after callus formation following a compound fracture of both bones of the forearm. This occurred three months after the injury. There was one case of brachial plexus palsy in a young boy who was hanging to a strap in a street car, lost his grip and seized his neighbor, hanging on to his shoulder, in this way overstretching his arm. Five roots of the brachial plexus were divided just outside the intervertebral foramen. We had four more, two of the external popliteal, injured at the time of a fibular fracture, two of direct injury at the point of the head of the fibula after dislocation of the knee. The great necessity of immediate examination for nerve injuries cannot be overstressed.

DR. ALFRED S. TAYLOR, New York: I have had five cases of late ulnar nerve palsies. In each case there happened to be either a transverse supracondylar fracture or a fracture of the internal condyle. I have not seen this associated with the external condylar fractures. In these cases the mechanism of the damage to the ulnar is the same; namely, a distortion of the internal condyle which increased the backward projection of it, which causes stretching and therefore continuous irritation of the ulnar nerve.

DR. RICHARD KOVACS, New York: At the Reconstruction Hospital we have seen upward of eighty cases of nerve injuries associated with traumatism. From the standpoint of diagnosis, while the clinical examination alone will in some cases be sufficient to settle the question, the method of electrodiagnosis will greatly assist in the complicated cases. The rule still holds that in any nerve injury the corresponding muscle ceases to respond to the impulse of the faradic current in four days, while after ten days galvanism elicits only a sluggish response. In any hospital with a physical therapy department, the test can be carried out satisfactorily. With the modern methods of condenser testing, response to electrical stimulation can be accurately measured and chartered. When it comes to the question of therapy, physical therapy aids only as an adjuvant; but it will help to maintain the condition of the paralyzed or weakened muscle, so that when the nerve regenerates or its physiologic function returns, instead of degenerated muscle fibers we find those which have kept their main function, that of contraction. The rational and systematic application of physical measures offers considerable help to the surgeon and the orthopedic man.

DR. BYRON STOOKEY, New York: Dr. Lewis called attention to a very important point—that no examination of a fracture is complete unless examined for a possible nerve injury. I should like to ask why Dr. Lewis would wait for three months before exploring. In a dislocation I have never seen a complete anatomic interruption of the nerves. It is usually a traumatism from which the patient will recover. If the roentgenogram shows a comminuted fracture with sharp points, and the history is obtained of an immediate paralysis, I think it would be wiser to cut down on the nerve and determine its condition, because whether by electrical reactions or otherwise, I know of no signs that will help one to determine whether it is interrupted anatomically. I can see no advantage in waiting three months, as Dr. Lewis suggested.

DR. DEAN LEWIS, Baltimore: I quite agree that it is impossible to differentiate between anatomic division of a nerve and the physiologic interruption of conduction. Even the most skilled neurologist is often unable to do this. If a neuroma can be palpated, it is distinct evidence of division or at least a nerve block which requires surgical intervention. I do not employ physiotherapy but use a splint with an elastic attachment, so that each time the part is used it is brought back to a neutral or an overcorrected position. As for waiting three months before operation unless there are indications for immediate intervention, I believe that this gives time for at least the beginning of recovery.

(To be continued)

Marriages

HAMILTON CHESLEY PERKINS, Boston, to Miss Caroline Ellsworth Bent of North Sudbury, Mass., in January.

GERALD A. EZEKIEL, Richmond, Va., to Miss Julia-May Sommers of Washington, D. C., February 22.

JULIUS A. JOHNSON, Omaha, to Miss Ruth Carlson of Chicago, April 24.

Deaths

Albert Brown Lyons ⊕ Detroit; University of Michigan Medical School, Ann Arbor, 1858; professor of chemistry, Detroit Medical College, 1868-1880; consulting chemist for Parke, Davis and Company, 1881-1886; member of the committee of revision of the United States Pharmacopeia from 1900-1920; one of the founders and first editor of the *Pharmaceutical Era;* author of "Plant Names, Scientific and Popular" and "Standardization by Chemical Assay of Organic Drugs" and other works; aged 84; died, April 3.

John Mason Little, Jr. ⊕ Boston; Medical School of Harvard University, Boston, 1901; for two years instructor in minor surgery at his alma mater; for several years connected with the Grenfell Missions in Labrador; at one time on the staff of the Massachusetts General Hospital; aged 50; died, March 24.

Constantine Francis McGuire, New York; Bellevue Hospital Medical College, New York, 1882; member of the Medical Society of the State of New York; on the staff of the Central Neurological Hospital; aged 71; died, April 15, of heart disease.

Rodney D. Ramey, Garden City, Mo.; Missouri Medical College, St. Louis, 1883; member of the Missouri State Medical Association; past president of the Cass County Medical Society; aged 70; died, April 6, of heart disease.

Zenas Lockwood Leonard ⊕ Pittsfield, Mass.; Medical Department of the University of the City of New York, 1880; aged 68; died, April 4, at St. Bartholomew's Hospital, of carcinoma of the sigmoid flexure of the colon.

Frederick King Shaw ⊕ Concord, Mass.; Medical School of Harvard University, Boston, 1902; chairman of the board of health; served during the World War; on the staff of the Emerson Hospital; aged 55; died, April 5.

James Michael Collity, Manchester, N. H.; Bellevue Hospital Medical College, New York, 1879; member of the New Hampshire Medical Society; for many years city physician; aged 71; died, March 27, of pneumonia.

Joseph Albert Pettus, Athens, Ala.; University of Nashville Medical Department, 1868; member of the Medical Association of the State of Alabama; Civil War veteran; aged 80; died, April 6, of organic heart disease.

Alfred E. Fretz ⊕ Sellersville, Pa.; University of Pennsylvania School of Medicine, Philadelphia, 1896; on the staff of the Grand View Hospital; aged 51; died, March 30, at the University Hospital, Philadelphia.

Morgan J. Williams, Scranton, Pa.; Medical Department of the University of the City of New York, 1881; member of the Medical Society of the State of Pennsylvania; aged 76; died, in March, of heart disease.

Prescott Tallman Mitchell, Cincinnati; University of Cincinnati College of Medicine, 1923; member of the Ohio State Medical Association; served during the World War; aged 31; died, April 1, of pneumonia.

George Burley Martin, Asheville, N. C.; Medical College of Virginia, Richmond, 1910; member of the Medical Society of Virginia; served during the World War; aged 43; died, April 11, at a hospital in Oteen.

James Benjamin Padgett, Ruffin, S. C.; Baltimore University School of Medicine, 1887; aged 61; died, March 23, at the Charles Es'Dorn Hospital, Walterboro, of chronic nephritis and heart disease.

Alexander Grier Appleby, Valley City, Ohio; College of Physicians and Surgeons, Baltimore, 1895; member of the Ohio State Medical Association; aged 52; died, April 4, of cerebral hemorrhage.

⊕ Indicates "Fellow" of the American Medical Association.

William Hill Bean ✠ New Haven, Conn.; Yale University School of Medicine, New Haven, 1903; formerly instructor in therapeutics at his alma mater; aged 59; died, Dec. 1, 1925, of angina pectoris.

William Franklin Baugh, Conway, Ark.; University of Arkansas Medical Department, Little Rock, 1885; member of the Arkansas Medical Society; aged 71; died, March 4, of angina pectoris.

Henry M. Collison, Sterling, Colo.; McGill University Faculty of Medicine, Montreal, Que., Canada, 1901; member of the Colorado State Medical Society; aged 51; died, February 26.

Edmund Henry Mitchell, Bakersfield, Mo.; Jefferson Medical College of Philadelphia, 1879; member of the Missouri State Medical Society; aged 68; died, March 30, of heart disease.

Ephraim Waldo Love, Fayetteville, Ohio; Rush Medical College, Chicago, 1881; member of the Ohio State Medical Association; aged 68; died, March 23, of carcinoma of the liver.

Joseph Roa Grant, Auburn, N. Y.; Cornell University Medical College, New York, 1904; served during the World War; aged 51; died, March 26, of pneumonia, following influenza.

Walter K. Smith, Adairville, Ky.; University of Louisville School of Medicine, 1884; member of the Kentucky State Medical Association; aged 64; died, April 2, at Lakeland, Fla.

Francis Joel Canedy ✠ Shelburne Falls, Mass.; University of Michigan Medical School, Ann Arbor, 1870; formerly bank president; aged 79; died, March 30, of pernicious anemia.

John Daniel Walthall, Paola, Kan.; University of Michigan Medical School, Ann Arbor, 1883; aged 66; was killed, March 22, near Osawatomie, in an automobile accident.

David O. Hudson, Montgomery City, Mo.; Missouri Medical College, St. Louis, 1879; formerly county coroner; aged 69; died, March 12, at Columbia, of heart disease.

Harlan Edward Linehan, Brooklyn; Baltimore Medical College, 1907; member of the Medical Society of the State of New York; aged 42; died, March 9, of myocarditis.

Harry Houghton Drake, Johnstown, N. Y.; Albany Medical College, 1909; member of the Medical Society of the State of New York; aged 49; died, April 2, of angina pectoris.

James David McGlamery, Birmingham, Ala.; University of Georgia Medical Department, Augusta, 1924; aged 28; died, March 2, at St. Vincent's Hospital, of pneumonia.

Hector Daniel McKenzie, Oakland, Calif.; Oakland College of Medicine and Surgery, 1918; member of the California Medical Association; aged 35; died, February 18.

Thomas Urquhart Joyce, Brooklyn; Long Island College Hospital, Brooklyn, 1881; member of the Medical Society of the State of New York; aged 78; died, April 1.

Charles Frederick Klippert, New York; Medical Department of the University of the City of New York, 1880; aged 67; died, April 7, following a long illness.

William Kurtz Mathis ✠ Chanute, Kan.; University Medical College of Kansas City, Mo., 1903; on the staff of the Johnson Hospital; aged 45; died, March 9, of nephritis.

John Albert Burtch, Coffey, Mo.; College of Physicians and Surgeons, Keokuk, 1895; aged 54; died, March 9, at the Noyes Hospital, St. Joseph, of diabetes mellitus.

William James Dunn, Camden, S. C.; Louisville (Ky.) Medical College, 1888; member of the South Carolina Medical Association; aged 62; died, March 12.

George Allan Rowe, Buffalo; Eclectic Medical Institute, Cincinnati, 1879; aged 71; died, April 4, of chronic myocarditis and chronic interstitial nephritis.

Morris S. Cohen, Fitzgerald, Ga.; Jefferson Medical College of Philadelphia, 1881; aged 60; died, February 19, at Cleveland, Ohio, of cerebral hemorrhage.

Daniel Driscoll ✠ Portland, Maine; Medical School of Maine, Portland, 1885; aged 65; died suddenly, March 29, at Jacksonville, Fla., of angina pectoris.

Edwin G. Proctor, Kane, Ill.; College of Physicians and Surgeons, Baltimore, 1882; member of the Illinois State Medical Society; aged 70; died, April 3.

Rudolph Albert Berneike, Cleveland; Long Island College Hospital, Brooklyn, 1886; aged 68; died, March 26, at the City Hospital, of bronchopneumonia.

Olney Galen Place ✠ Boulder, Colo.; University of Michigan Medical School, Ann Arbor, 1885; aged 65; died, March 18, of cerebral hemorrhage.

John W. Buxton, Howard, Ohio; Starling Medical College, Columbus, 1883; aged 67; died, March 18, at the Grant Hospital, Columbus, of cholelithiasis.

Peter Eugene M. Goetz, Chicago; Western Reserve University School of Medicine, Cleveland, 1885; aged 62; died, March 28, of chronic myocarditis.

George Washington Baughman, Mansfield, Ohio (licensed, Ohio, 1899); formerly county coroner; aged 72; died, March 30, of bronchopneumonia.

William Mitchell Love ✠ Chester, S. C.; Medical College of the State of South Carolina, Charleston, 1881; aged 66; died, March 26, of heart disease.

Abdul M. Templeton, Canton, Ohio; Starling Medical College, Columbus, 1889; aged 67; died, March 14, of pulmonary edema and chronic nephritis.

Nathaniel L. MacBride, New York; Hahnemann Medical College and Hospital, Chicago, 1878; aged 71; died suddenly, March 26, of heart disease.

William V. Norris, Corydon, Ky.; Kentucky School of Medicine, Louisville, 1866; aged 82; died, March 17, of influenza and pneumonia.

Francis R. Woodard ✠ Minneapolis; Rush Medical College, Chicago, 1879; aged 77; died, March 29, at St. Augustine, Fla., of cerebral hemorrhage.

Albert Benton Peck, Knoxville, Tenn.; Vanderbilt University Medical Department, Nashville, 1899; aged 54; died, April 2, of pneumonia.

Virgil Newton Seawell, Faison, N. C.; Washington University School of Medicine, Baltimore, 1868; Civil War veteran; aged 86; died, April 1.

James H. Lathrop, Toledo, Ohio; Toledo Medical College, 1889; aged 69; died, March 28, at the Eastside Hospital, of cerebral hemorrhage.

Fred Anthony Hadley ✠ Walden, N. Y.; College of Physicians and Surgeons, Baltimore, 1895; aged 63; died, March 23, of heart disease.

Rush Neer ✠ Paterson, N. J.; Long Island College Hospital, Brooklyn, 1880; aged 76; died, March 19, of carcinoma of the rectum.

Jerry A. Leeman, Pecos, Texas; Kentucky School of Medicine, Louisville, 1876; Civil War veteran; aged 84; died, March 21.

Joe M. Owens, Cross Hill, S. C.; Medical College of the State of South Carolina, Charleston, 1896; aged 54; died, March 22.

Albert E. Norton, Philadelphia; University of Pennsylvania School of Medicine, Philadelphia, 1884; aged 66; died, March 26.

Daniel A. Pelton, Forrest City, Ark.; Barnes Medical College, St. Louis, 1897; aged 60; died, March 29, of angina pectoris.

Charles Franklin Ely, Chicago; New York Homeopathic Medical College, 1876; aged 70; died, April 15, of heart disease.

Lewis L. Baker, Shenandoah, Iowa; Northwestern Medical College, St. Joseph, 1892; aged 70; died, March 26, of heart disease.

Nicholas Green Matthews, Owensville, Mo. (licensed, Missouri, 1884); Civil War veteran; aged 85; died, February 26.

William J. Walker ✠ Bryan, Ohio; Toledo Medical College, 1898; aged 56; died, March 30, of cerebral hemorrhage.

James Tidwell Raines, Malesus, Tenn.; University of Nashville Medical Department, 1874; aged 66; died, March 28.

Clyde P. Kennedy, Decatur, Ill.; Medical College of Ohio, Cincinnati, 1880; aged 69; died, April 7, of heart disease.

Frank H. Dunlap ✠ Brawley, Calif.; Kansas City Homeopathic Medical College, 1894; aged 54; died, February 16.

John A. McCrea, Tifton, Ga.; Georgia College of Eclectic Medicine and Surgery, 1885; aged 76; died, March 24.

Irvin R. Mohney ✠ Brookville, Pa.; Jefferson Medical College of Philadelphia, 1905; aged 51; died, February 11.

Charles Ward Copeland, Fall River, Mass.; University of Giessen, Germany, 1877; aged 73; died, March 30.

John S. Lytle, Dunkirk, Ind.; University of Edinburgh, Scotland, 1880; aged 66; died, March 28.

Emory P. Bryan, Conyers, Ga.; Atlanta Medical College, 1897; aged 57; died, March 23.

Thomas A. Ross, Arkadelphia, Ark. (licensed, Arkansas, 1907); died recently.

The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE JOURNAL'S BUREAU OF INVESTIGATION, OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER GENERAL MATERIAL OF AN INFORMATIVE NATURE

STEERE'S ELIXIR ASPIRIN COMPOUND, STEERE'S ELIXIR AMMONIUM SALICYLATE, NELSON ELIXIR OVARANS, AND ELIXIR DIGITALIN COMPOUND NOT ACCEPTABLE FOR N. N. R.

Report of the Council on Pharmacy and Chemistry

The Council has authorized publication of the following report. W. A. PUCKNER, Secretary.

Steere's Elixir Aspirin Compound, "prepared and guaranteed" by American Laboratories Incorporated, is claimed to contain in each teaspoonful, "Aspirin 2½ Gr., Caffeine Citrated ½ Gr., Rhubarb 1 Gr." and 50 per cent of alcohol. Solutions of acetylsalicylic acid are known to be unstable. The A. M. A. Chemical Laboratory reports that the preparation contains large quantities of salicylic acid, showing that the "aspirin" said to be present was almost entirely decomposed. The liquid possesses an aromatic "bouquet" with a decided odor of ethyl acetate and ignites readily (*alcohol*).

Steere's Elixir Aspirin Compound is unacceptable for New and Nonofficial Remedies because it does not have the composition claimed; because the name is not descriptive of its composition; and because it is irrational to administer a mixture containing acetylsalicylic acid, or its decomposition products, alcohol, caffeine and rhubarb in fixed proportions.

Steere's Elixir Ammonium Salicylate, "prepared and guaranteed" by American Laboratories Incorporated, is marketed with the claim that each teaspoonful represents "Ammonium Salicylate 2½ Grs., Caffeine Alkaloid ¼ Gr., Rhubarb 1 Gr." According to the label it is:

"Especially serviceable in restoring the Alkaline Reserve where an Acidosis exists as in Broncho-Pneumonia, Influenza, Rheumatism, Colds, &c. . . ."

Steere's Elixir Ammonium Salicylate is unacceptable for New and Nonofficial Remedies because the name is misleading in that it does not correctly declare the potent ingredients; because the recommendations for its use are unwarranted and their inclusion on the label may lead to its indiscriminate use by the laity; and because the routine administration of a mixture of a salicylate, caffeine and rhubarb in fixed proportions is not in the interest of rational therapy.

Nelson Elixir Ovarans, "prepared and guaranteed" by American Laboratories Incorporated, is stated to be "A Pleasant and Palatable Preparation of Viburnum Prunifolium, in Combination with Symplocarpus Foet., Cinnamon, &c., with Aromatics", but no statement of the amount of viburnum prunifolium (black haw) and symplocarpus foetidus (skunk cabbage) is given. According to the label, this preparation of obsolete drugs is thus described:

"Uterine Tonic and Sedative. Exceedingly valuable in Dysmenorrhoea, Spasms, Flatulency, Convulsions, Cramps, Hysteria, Cholera and Amenorrhoe, &c."

Perhaps in appreciation of the ineffectiveness of the mixture, the label contains the suggestion: "Can be advantageously combined with Bromides, Codea, Morphia, Chloral, &c."

Nelson Elixir Ovarans is unacceptable for New and Nonofficial Remedies because it is a mixture of indefinite composition sold under a noninforming name and with claims that are unwarranted and likely to lead to its ill-advised use by the public.

Elixir Digitalin Compound, "prepared and guaranteed" by American Laboratories Incorporated, is stated to contain 22.5 per cent of alcohol by volume and it is claimed that "Each Fluidrachm Contains:—Digitalin, 1-100 gr.; Nitroglycerin, 1-100 gr.; Strychnine Sulphate, 1-50 gr." No information is contained on the label or in the circular letter sent to physicians in regard to the form of "digitalin" contained in the preparation nor is there any assurance (other than the statement that the preparation is "prepared and guaranteed" by the firm), to show that the unstable nitroglycerin is present in the product that reaches the patient in the amount claimed on the label. Tests carried out in the A. M. A. Chemical Laboratory showed that the specimen sent to the Council was practically devoid of this potent ingredient. This mixture is:

"Recommended in fevers or low condition of the system from any cause. Especially indicated in Collapse requiring immediate stimulants after shock or surgical operation."

The word "Digitalin" has been applied to many different substances, and it is almost meaningless unless qualified, *e. g.,* "German" Digitalin, "French" Digitalin, or True Digitalin. The name should be applied only to the last mentioned, of

VITAMINS IN FOODS
"A" "B" "C" "D"
BREAD, (WATER) – + – –
" , (MILK) + + – +
" , WHOLE WHEAT (WATER) + ++ – –
" , " " (MILK) ++ ++ ? +
BARLEY (WHOLE) + ++ –
CORN, YELLOW + ++ –
OATS + ++ – –
RYE, CRACKED + ++ ?
WHEAT, KERNEL ++ +++ – +
" , BRAN + +++ –
LIVER ++ ++ ? +
KIDNEY ++ ++ + +
BRAINS + ++ ? +
HEART + + + +
FISH, FAT + + ? –
" , ROE + ++ ? +
MILK, FRESH, (UNPASTEURIZED) +++ ++ ++V ++
" , CONDENSED +++ ++ +V +
" , EVAPORATED +++ ++ ?
" , DRIED, (WHOLE) +++ ++ +V
" , SKIMMED + + +V
BUTTERMILK + ++ +V
CREAM +++ ++ +V
BUTTER +++ – – +
CHEESE ++ ++ –
EGGS +++ ✧ – +
ALMONDS + ++? ●
COCONUT + ++ – +
HICKORY NUTS ● ++ ●
PEANUTS + ++ ●
WALNUTS ● ++ ●
TOMATO (RAW OR CANNED) ++ +++ +++
BEANS, KIDNEY + +++ ●
" , NAVY + +++ ●
" , STRING ++ ++ +
BEETS – + +
CABBAGE, RAW ++ +++ +++
" , CANNED ● ● ++
" , COOKED BRIEFLY ++ ++ +
CARROT, RAW ++ + +
" , COOKED ++ + +V
CAULIFLOWER + ++ ?
DANDELION GREENS ++ ++ + +
LETTUCE (GARDEN) ++ ++ +++ +
ONIONS ? ++ ++
PARSNIP – ++ ?
PEAS, FRESH ++ ++ +++ +
POTATO (BOILED) + ++ ++
SWEET POTATO ++ + ?
RUTABAGA – ++ +++
SPINACH, FRESH +++ +++ +++
" , CANNED +++ + +++
SQUASH ++ ? ?
TURNIPS – ++ +++
APPLES + ++ ++
BANANAS ? + +
GRAPE JUICE ? + + –
GRAPEFRUIT ? ++ ++ –
LEMON JUICE – ++ +++
ORANGE JUICE + ++ +++
PINEAPPLE (RAW OR CANNED) ++ ++ +++
RASPBERRIES (RAW OR CANNED) ● ● +++
PEACHES (RAW OR CANNED) ++ + ++
+ contains the Vitamin
++ good source of the Vitamin
+++ excellent source of the Vitamin
– no appreciable amount of the Vitamin
? doubt as to presence or relative amount
● evidence lacking or insufficient
V variable

A miniature reproduction of a new poster just issued. This is one of forty educational posters prepared and issued by the Bureau of Investigation of the American Medical Association. The original posters are 22 inches by 28 inches, and sell for twenty cents each.

which we do not know the dose, because it is absorbed poorly from the gastro-intestinal tract. Certainly, doses of 1/100 of a grain repeated several times a day are not sufficient to induce the typical effects of digitalis, and Eggleston says (*Arch. Int. Med.*, 1915, **16**, p. 1) that True Digitalin is unsuited for therapeutic use by oral administration. The nitrites have been used as "cardiac tonics" but, as Cushny says (Pharmacology and Therapeutics, 8th edition, 1924, page 406) any benefit from their use in cardiac conditions arises from their causing decreased resistance to the flow of blood, and it is well known that they (including nitroglycerin) cause dilatation of the vessels, and consequent fall of blood pressure. There can hardly be a more irrational procedure than to use a vaso-dilator, such as nitroglycerin, in collapse or shock in which the blood pressure is exceedingly low.

The action of Digitalis is far more lasting than that of nitroglycerin, hence their combination in fixed proportion in a mixture is irrational. Strychnine can possibly have some therapeutic value in shock, but this is problematic. It should be used alone, if at all, and only as specifically indicated.

Elixir Digitalin Compound is unacceptable for New and Nonofficial Remedies because its composition is uncertain; because the name is not descriptive of its composition; and because it is an irrational combination marketed with claims that are unwarranted.

Correspondence

"THE BASAL METABOLISM OF MAN IN THE TROPICS"

To the Editor:—My attention has been drawn to Dr. E. F. Du Bois' comments on "Basal Metabolism in Health and Disease." I have also read with interest Dr. S. S. Cohen's letter (THE JOURNAL, Jan. 28, 1922, p. 297) and your editorial comment (Dec. 31, 1921).

I have been determining the basal metabolic rate in young Bengalese students (aged 22 to 27 years) for some time. Using the Douglas bag and Haldane gas analysis apparatus, I have so far studied fifteen medical students of our college. They show an average basal metabolic rate 9 per cent lower than the generally accepted standards at an average room temperature of 27 C.

It would thus appear that metabolism is somewhat decreased in tropical or semitropical countries, though my findings are not so striking as those of de Almeida.

It may be mentioned that the urea nitrogen, nonprotein nitrogen, creatinine and cholesterol contents of the blood in Bengalese are lower and the uric acid content is higher than the accepted standard values (*Calcutta M. J.*, May, 1925; October, 1925).

H. N. MUKHERJEE, Calcutta.

GERMANISMS IN THE DUTCH LANGUAGE

To the Editor:—In my copy of THE JOURNAL, February 20, I detected something under the headline "Netherlands" that I feel bound to correct. Our language is getting spoiled more and more by Germanisms of various kinds. But we are not Germans yet. So if you haven't got a perfectly adequate English word for the German "Krankenkasse," your correspondent should have used the Dutch "Zichenfonds," at the same time conveying its meaning of a certain form of insurance in case of sickness. And the literal translation "Sick-fund" or Fund for the Sick would have been better than the German expression.

It is Prof. van der Valk, not v. den Valk, who was appointed head of the new dermatologic clinic at the Government University, Groningen.

I should like being able to subscribe to your correspondent's opinion of the excellent results of Dutch instruction of the masses in hygiene. I had full opportunity to study the utmost opposite during an epidemic of scarlet fever and in some more casual facts, especially concerning quackery and the advertising of quackery manufacturers.

L. W. SCHUT, M.D., Vlieland, Netherlands.

DIGITALIS MEDICATION

To the Editor:—In his studies to determine the clinical value of parenteral digitalis medication, Pardee used only the electrocardiogram, a method which has not yet been perfected satisfactorily so as to permit definite conclusions from a therapeutic standpoint.

We have known for some time that relatively high doses of digitalis are well borne when given intravenously. It is also well known, and especially Sahli pointed this out, that small doses will give as good results as large ones. Sahli finds it entirely unnecessary to go beyond 4 cc. (of digalen); in most cases, 2 cc. is fully sufficient to obtain the full therapeutic action. Kottman also showed that large doses (of digalen) are well borne, but he states explicitly that from 1 to 3 cc. will give the same clinical effect. In other words, Kottman and others showed that the upper margin of safety is high, that the zone between the clinically effective and the toxic dose is wide. Observations with other injectable digitalis preparations gave similar results, which demonstrates the relatively small toxicity of digitalis bodies when given intravenously. This cannot be said for strophanthus.

The fact that continued oral administration of digitalis brings about stronger effects than a single injection is in correlation with our newer conceptions of the cumulative action. Gradually some digitoxigenin accumulates, which is not the case with intravenous injections and the rapidly following elimination *en masse*. Furthermore, digitalis acts partly on the sympathetic system, and we know that the administration, for days or weeks, of accelerating or inhibiting substances may bring about reactions in the sympathetic system (sometimes a complete reversal of action) which we can never get even with very large single doses.

In my belief, what the author considers a simple question of dosage is a far more complicated problem. His conclusions may actually prove dangerous, when applied by inexperienced practitioners.

PROF. MAX CLOETTA, Switzerland.
Department of Pharmacology,
University of Zurich.

[The letter of Professor Cloetta was referred to Dr. Pardee, who replies:]

To the Editor:—I was much interested to receive the criticism of my recent paper on digitalis medication. The critic is certainly quite right in saying that the method of testing digitalis is one which has not yet been perfected so as to permit definite conclusions from a therapeutic standpoint. On the other hand, I have had considerable occasion to check it and I have found it satisfactory.

I am not sure as to what Sahli and Kottman meant when they referred to full therapeutic action and clinical effect. It is not likely that they meant the same thing that I would mean if they have obtained it after 2 cc. or 3 cc. of digalen. I am unfamiliar with and cannot find the literature to which reference is made. My own experience shows that there is a great difference between the activity of 30 minims and 120 minims when given intravenously in each case. I do not find much difference between 30 minims intravenously and 30 minims by mouth, except in the rate of onset of the action. He refers to rapid elimination following intravenous injection. This is not proved as far as I know and I do not believe it occurs. My experience with the intravenous method since the publication of the article has led me to believe that

what was said there will stand. An article showing the effects of therapeutic administration of these intravenous doses will appear shortly. It is certainly true that large intravenous doses as well as large doses by mouth may actually prove dangerous when applied by inexperienced practitioners. This is regrettable but cannot be avoided. It should not stand in the way of the wider dissemination of knowledge of the proper dose of digitalis.

I confess that I was greatly surprised at the result of this experimental work with intravenous digitalis preparations. I was slow to accept the facts stated in my conclusion, but was forced to do so; and, as I have said, subsequent usage has quite borne out my conclusion.

HAROLD E. B. PARDEE, M.D., New York.

"CONTROLLING THE ODOR AND TASTE OF ARSPHENAMINE"

To the Editor:—In THE JOURNAL, March 20, page 840, I read with much interest Dr. J. H. Stokes' short article on "Controlling the Odor and Taste of Arsphenamine," in which he states that he allows a strong wintergreen or clove wafer to dissolve on the patient's tongue during the injection.

I frequently have patients complain of the same peculiar odor and taste while receiving an intravenous injection of arsphenamine, particularly neo-arsphenamine, and I have always found that this could be almost entirely relieved by smelling a little cotton well moistened with bay-rum. The reason why I used bay-rum is that when looking about for something with a decided odor I happened to have some handy in my office, and it has a peculiar penetrating odor. I have been using bay-rum for this purpose for the last ten years and have been well satisfied with the results, although I have never reported its use. C. J. BROEMAN, M.D., Cincinnati.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

ALBUMOSURIA

To the Editor:—1. Is the prognosis of albumosuria necessarily unfavorable? 2. Are all cases showing albumose in the urine hopeless? Our textbooks speak of Bence-Jones albumosuria, and give the prognosis as being fatal within two years. The Bence-Jones albumosuria occurs in myelomas, cancer and leukemia. They also mention albumosuria in connection with pneumonia, pregnancy, scurvy and intestinal indigestion. But in giving the prognosis they state that it is of grave significance, and runs a fatal course within two years. The literature is very meager, and we do not know whether the cases in which it occurs in connection with pneumonia necessarily result fatally or not. And likewise for the cases associated with pregnancy, indigestion, etc. 3. I have under my care at this time a young woman of 17, married, and about eight months advanced in her first pregnancy. The urine shows a large quantity of albumosuria: she recently had the greatest percentage of albumin that I have ever witnessed in any one's urine (by volume). We have eliminated the albumin, and now have a very decidedly large amount of albumosuria in the urine. Her face was swelled, but the swelling has disappeared under treatment. Please give me all the information you can reasonably in regard to the significance of albumosuria in the urine in cases other than those called Bence-Jones albumosuria.

J. W. YANKEY, M.D., Sylvia, Kan.

ANSWER.—1. No.

2. No.

3. Deutero-albumose is the type usually found. It differs from the Bence-Jones protein, which is probably a true albumin. Albumosuria is observed in a great variety of conditions, and may occur in association with albumin, the mixed albuminuria of Senator. It does not arise in the kidney but is evidence of infection, irritation, functional disturbance, and the like, in various organs of the body. Large accumulations of pus are particularly prone to cause albumosuria until they have been evacuated or absorbed. Unless it should occur in some condition which of itself will lead to a fatal issue, it is of little prognostic significance.

DIPHTHERIA ANTITOXIN—EPINEPHRINE IN INSULIN HYPOGLYCEMIA

To the Editor:—1. Is it safe to use diphtheria antitoxin intravenously? What are the indications and contraindications? 2. In hypoglycemia induced by overdosage of insulin, will epinephrine cause a liberation of glycogen from the liver, with benefit to the patient? Please do not publish my name.

M.D., Galveston, Texas.

ANSWER.—1. Diphtheria antitoxin can be given intravenously almost always when it can be given subcutaneously. It is particularly of value in late, advanced cases. Park reports that, given intravenously, 5,000 units is as valuable as 20,000 given subcutaneously. The contraindications are the same as for subcutaneous injection. Anaphylaxis, which occasionally is the cause of severe symptoms, may be looked for in those susceptible to horse serum injection. This applies particularly to patients who at some previous time have received horse serum injections. In these cases it is advisable to give a subcutaneous injection of a few drops of serum. If no reaction occurs, the full dose can be given two or three hours later.

2. Wilder and his associates (*J. Metab. Research* **2**:701 [Nov.-Dec.] 1922) state that epinephrine may be used to combat insulin hypoglycemia in man. They note the relatively short duration of its effect, but emphasize the necessity of administering carbohydrates immediately after the patient is able to swallow. Macleod and Campbell (Insulin and Its Use, 1925, p. 102) do not favor its use. Since the glycogen stores are already depleted in emaciated patients, the amount of glucose set free by epinephrine may be too small to relieve the hypoglycemia. Since it also increases the heart work, the results may be most serious if no glycogen stores are available.

BARIUM SULPHATE FOR CYSTOGRAMS

To the Editor:—Some time during the past year I read in the French journal *Urology* the statement that they were using a barium preparation in the bladder for cystograms. At the recent meeting of the Radiological Society at Cleveland, mention was also made of this fact. The preparation, however, was made after a certain fashion, the substance being exceedingly fine and homogeneous. Will you kindly tell me the method of preparing this medium for cystographic work?

J. E. B. ZIEGLER, M.D., Eau Claire, Wis.

ANSWER.—The substance employed was a very fine suspension of barium sulphate, utilized in a manner similar to opaque washings. The barium sulphate is eliminated by micturition or vesical lavage in a short time. Edmund Papin has reported that it is used without inconvenience and is well tolerated (Société française d'urologie, March 16, 1925; *J. d'urol.* **19**:343 [April] 1925). A 40 per cent suspension of fine barium sulphate is being prepared in this country and is under consideration by the Council on Pharmacy and Chemistry.

DOSE OF COD LIVER OIL

To the Editor:—I am anxious to get some definite data as to the amount of cod liver oil necessary for normal infants, preschool children, school children and adults. I find that the statements differ so in regard to pure cod liver oil that I am writing to ask you what is the amount which you consider necessary for normal individuals mentioned and on what you base your conclusions. Has there been sufficient work along this line to give us a scientific backing for the amounts prescribed?

HELEN MONSCH, Ithaca, N. Y.

ANSWER.—The experimental data concerning the use of cod liver oil in the prevention of rickets have been confined almost exclusively to rats. Some work has been done on chickens. Harry E. Dubin (*Am. J. Dis. Child.* **30**:72 [July] 1925) writes that, with a dose of 7 mg., rats on the Pappenheimer zucker diet D, which consists of patent flour, 80.9 Gm., egg albumin, 10 Gm., butter fat, 5 Gm., and salts, 4.1 Gm., developed slight rickets. He says that the minimal dose varies both with the potency of the oil and with the type of diet used. While a less than minimal dose for a rat weighing 49 Gm. was 7 mg. of cod liver oil daily, other animals required 14, 21 or 28 mg. of cod liver oil to prevent rickets.

Howland and Kramer (*Am. J. Dis. Child.* **22**:105 [Aug.] 1921) showed that in a 35 months old baby, the healing of rickets determined by roentgenogram occurred after the administration of 2 cc. of cod liver oil given twice a day for two months. They found that from 2 to 4 cc. of cod liver oil, given three times a day for a period as short as three weeks or as long as ten weeks, caused active healing of rickets, as shown by roentgen-ray tests.

Martha M. Elliot (THE JOURNAL, Aug. 29, 1925, p. 656) found that from 10 to 20 drops of cod liver oil given twice

a day was sufficient to protect young infants against the development of rickets, though, on the other hand, it was found that infants who were kept on this dose for several months tended to show roentgen-ray evidence of early rickets. From her experience she found it necessary in order to protect against this disease to give one-half teaspoonful twice daily before the first month. During the second month the dose is gradually increased to 1 teaspoonful twice a day. If the roentgenogram shows any increase in the rachitic process, the dose is increased to 1½ teaspoonfuls or even 1 dessertspoonful before the end of the third or fourth month.

These doses have been worked out by the observations of a number of workers, who have checked their results by roentgen-ray examination of the bones.

There are no available data about the dosage of cod liver oil for preschool children, school children or adults. In the period after infancy, rickets does not commonly occur, and cod liver oil is administered for its effect in promoting growth and development and to supply an accessory food substance which is twenty times as potent as butter fat in the prevention of keratomalacia.

HYPERCALCEMIA

To the Editor:—In THE JOURNAL, March 13, page 803, appears a reply to a query of Dr. Joseph Halton, Sarasota, Fla., stating that as yet hypercalcemia has never been demonstrated after oral administration of calcium salts in any quantity and for any length of time. In the light of recent investigations, this statement is erroneous.

Luckhardt and his collaborators (*Am. J. Physiol.*, 1923-1925; *Proc. Soc. Exper. Biol. & Med.*, 1923-1925) found that calcium lactate given orally to tetanic dogs relieved symptoms, provided it was given in doses of at least 1.5 Gm. per kilogram of body weight daily.

Salvesen and his associates (*J. Biol. Chem.* **60**: 327 [June] 1924) observed a serum calcium increase in one of two dogs which received 7.5 Gm. of calcium chloride by mouth.

Boothby (*Endocrinology* **8**: 662, 1924) succeeded in controlling the symptoms of strumaprivic tetany in the human species by giving calcium lactate in 4 Gm. doses every three hours, day and night.

The foregoing shows directly and indirectly that calcium salts may be absorbed, when given orally, in quantities sufficient to increase the blood calcium. In my own observations (*J. Biol. Chem.* **45**: 783 [Oct.] 1925) I found that Luckhardt's minimum dosage of 1.5 Gm. of calcium lactate per kilogram of body weight was also the smallest dose that would assure induction of hypercalcemia. Doses of one-half this amount induced an increase in serum calcium in dogs, but not consistently. Luckhardt has told me that in recent observations of his he has confirmed my findings.

It is not my purpose to discuss the rationale of oral calcium therapy, but merely to call attention to the fact that hypercalcemia may be induced by oral administration of large amounts of certain calcium salts.

A. M. HJORT, M.D., Detroit.

TREATMENT OF ALOPECIA

To the Editor:—Will you kindly help me out? I have a patient with alopecia universalis. The patient began to lose hair about August, 1925, and at the same time stopped menstruating. The menses are still suppressed. She is 22 years of age; she has one child in good health; the Wassermann reaction is negative; she is not neurasthenic, anemic or diabetic. My treatment so far, over a period of about two months, has been quartz light twice weekly, second and third degree burns, with local applications of:

Tinc. cantharides	24 cc.
Tinc. capsici	3 cc.
Olei ricini	āā 3 cc.
Bay rum, q. s.	ad 180 cc.

with no result. Also ovarian and thyroid.

H. W. NILSSEN, M.D., Chicago.

ANSWER.—The patient has apparently a case of alopecia areota totalis associated with an endocrine disturbance. The treatment of the universal types of alopecia areata is very unsatisfactory. A sparse regrowth of delicate hairs can sometimes be secured by local therapy with quartz light and stimulants such as Cutler's solution (equal parts of phenol [carbolic acid], tincture of iodine and chloral hydrate). This regrowth is usually not permanent. In addition, arsenic may be used for its tonic effects.

TREATMENT OF RINGWORM

To the Editor:—I should like to get some specific treatment outlined through THE JOURNAL for the cure of a form of ringworm (cow itch), which is quite common throughout this section of the country. It is very common on young cattle and is easily transmitted to people who feed or handle these cattle. It assumes a typical form of ringworm, and is most obstinate to treat when affecting the beardy part of the face. Ordinary parasiticides seem to do little or no good in treating this malady.

B. E. REEVES, M.D., West Jefferson, N. C.

ANSWER.—Ringworm contracted from cows may be either of the superficial type, the ordinary tinea circinata, or of the deeper seated type of ringworm infection of the beard. The former variety usually responds readily to the parasiticides ordinarily employed in the treatment of ringworm. The deep seated ringworm infection of the beard is very resistant to treatment. The beard should be kept closely clipped, and epilation carried out either by the use of forceps or roentgenotherapy. The entire bearded region should be sponged twice daily with a solution of 1 per cent mercuric chloride in alcohol, and the affected parts rubbed with a 10 per cent oleate of mercury ointment. Another useful application is an iodized fat made by dissolving 12 per cent iodine crystals in goose grease, this ointment to be rubbed in daily until some reaction is secured, when it should be employed less frequently. Mercurial preparations should not be used on the face at the same time that iodine is employed. Cure ordinarily requires a considerable time, and not infrequently epilation by means of the roentgen ray is the only successful method.

Medical Education, Registration and Hospital Service

COMING EXAMINATIONS

AMERICAN BOARD OF OTOLARYNGOLOGY. CANADA: Monteal, June 1. Sec., Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Mo.

ARKANSAS: Little Rock, May 11-12. Sec., Dr. J. W. Walker, Fayetteville. Homeo. Board, Little Rock, May 11. Sec., Dr. A. A. Pringle, Eureka Springs. Eclectic Board, Little Rock, May 11. Sec., Dr. Claude E. Laws, Fort Smith.

DELAWARE: Wilmington, Regular Board and Homeo. Board, June 15-17. Pres., Dr. H. W. Briggs, Wilmington.

FLORIDA: St. Petersburg, June 14-15. Sec., Dr. H. M. Rowlett, Box 603, Tampa.

IOWA: Iowa City, June 8-10. Commissioner of Health, Dr. Don M. Griswald, State Capitol, Des Moines.

GEORGIA: Atlanta, June 9-11; Augusta, June 1-3. Sec., Dr. C. T. Nolan, Marietta, Ga.

KANSAS: Kansas City, June 15. Sec., Dr. Albert S. Ross, Sabetha.

KENTUCKY: Louisville, June 22. Sec., Dr. A. T. McCormack, 532 West Main Street, Louisville.

MARYLAND: Baltimore, Reg. Bd., June 15-18. Sec., Dr. Henry M. Fitzhugh, 1211 Cathedral St., Baltimore. Homeo. Bd., June 15-16. Sec., Dr. Joseph S. Garrison, Old Orchard Rd., Ten Hills, Baltimore.

MICHIGAN: Ann Arbor, June 8-10. Detroit, June 14-16. Sec., Dr. Guy L. Connor, 707 Stroh Bldg., Detroit.

NATIONAL BOARD OF MEDICAL EXAMINERS: Part I, June 21-23; Part II, June 22-23. All applications should be made on or before May 15. Sec., Dr. J. S. Rodman, 1600 Walnut Street, Philadelphia.

NEBRASKA: Omaha, June 8-10. Director, Bur. of Exam. Bds., Mrs. Clark Perkins, Lincoln.

NEVADA: Carson City, May 3. Sec., Dr. Simon L. Lee, Carson City.

NEW JERSEY: Trenton, June 15-16. Sec., Dr. Alexander MacAlister, Room 1101, Trenton Trust Bldg., Trenton.

NORTH CAROLINA: Raleigh, June 21-25. Sec., Dr. K. P. B. Bonner, Morehead City.

OHIO: Columbus, June 8-11. Sec., Dr. H. M. Platter, Columbus.

OKLAHOMA: Oklahoma City, June 15-16. Sec., Dr. J. M. Byrum, Shawnee.

TEXAS: Austin, June 15-17. Sec., Dr. T. J. Crowe, 918 Mercantile Bank Bldg., Dallas.

VIRGINIA: Richmond, June 16-19. Sec., Dr. J. M. Preston, 720 Shenandoah Life Bldg., Roanoke.

California Reciprocity Report

Dr. Charles C. Pinkham, secretary of the California Board of Medical Examiners, reports that twenty-seven candidates were licensed by reciprocity from December, 1925, to February, 1926. The following colleges were represented:

College	LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
Stanford University School of Medicine		(1921)	Nevada
University of Colorado School of Medicine		(1907)	Idaho
Northwestern University Med. School		(1909)	Illinois, (1912) Iowa
University of Illinois College of Medicine		(1924)	Michigan
Indiana Medical College		(1910)	Indiana
Indiana University School of Medicine		(1924)	Indiana
University of Kansas School of Medicine		(1918)	Kansas
University of Louisville School of Medicine		(1897), (1906) (1915)	Kentucky Ohio
Tulane University of Louisiana School of Medicine		(1910)	Arkansas
Johns Hopkins University Medical Department		(1917)	Michigan
University of Michigan Medical Department		(1907)	Minnesota
University of Minnesota Medical Department		(1923), (1924)	Minnesota
Ensworth Medical College		(1906)	Kansas
St. Louis University School of Medicine		(1912)	Iowa, (1920) Missouri
Washington University School of Medicine		(1924)	Missouri
Columbia University College of Physicians and Surgeons		(1915), (1923)	New York, (1923) New Jersey
College of Phys. and Surgs. of Syracuse University		(1896)	Nebraska
Meharry Medical College		(1911)	Arkansas
Medical College of the State of South Carolina		(1923)	S. Carolina
University College of Medicine, Richmond		(1913)	Virginia

Book Notices

KIDNEY DISEASE. From the Physician's Viewpoint. By Rolfe Floyd, M.D., Junior Attending Physician and Pathologist at the Roosevelt Hospital, New York. Cloth. Price, $2.50. Pp. 181. New York: James T. Dougherty, 1926.

In his introduction, the author gives a clear and concise survey of the problems encountered in discussing medical renal diseases. In the chapters on classification, he records historical material that may be of great value to the medical philosopher and historian but hardly is apt to arouse the interest or answer the demands of the practicing physician. In the chapter on renal functions, one finds an excellent presentation of the fundamental facts to be considered in qualifying the task of the kidneys, but the author fails to present a workable theory of renal function, though a great many leading clinicians have offered such news, based on clinical evidence in preference to the results of animal experiments. One also misses the desirable emphasis to be laid on one of the most essential features of the renal activity—the elasticity of function to adjust itself to the variations in the offerings of the metabolic end-products. The author is in error in stating that all the current functional theories are based on the conviction that the tubules alone represent the functional units. Many authors agree that it is the glomeruli that excrete the urinary water and the nitrogen compounds, while the tubular system produces the remainder of the urinary solids. The chapter on uremia is characterized by a full presentation of the clinical facts, and excels in sound reasoning. In dealing with renal dropsy, the author gives full recognition to the modern concept, that the intermediate structures play an important part in the production of this clinical phenomenon. The author repudiates the concept and term nephrosis in Volhard's sense, but quotes instances in which, during necropsy, only degeneration of the tubular epithelium was found without any pathologic involvement of the glomeruli. It is satisfactory to note that in dealing with the renal functional tests the author reduces the popular overestimation of the value of the color tests to the proper proportions. One misses, though, an enumeration of the precautions to be employed in order to guarantee a proper evaluation of the results gleaned from the various functional capacity tests. The critical ability of the author cannot be better characterized than by quoting the closing lines of the chapter: "Meantime let us be more particular about the terms we employ and never try to warp nature with them to our own undoing." The chapter on treatment is inadequate, since the author attempted the impossible task of covering the subject in ten pages.

DAS WACHSTUM DES KINDES. Von Prof. Dr. Eugen Schlesinger, Städtischer Fürsorgearzt in Frankfurt a. M. Paper. Price, 6 marks. Pp. 128, with 8 illustrations. Berlin: Julius Springer, 1926.

Schlesinger has reviewed the literature on the growth of the child. His point of view is that of the school physician; hence his observations are concerned chiefly with measurements, tables and systems of procedure. Some chapters are too mathematical to interest the practicing physician. On the other hand, the author's experience during the World War, when he had the opportunity of observing the effect of undernutrition on a large scale, makes chapters of considerable interest. While more a summary of the literature than an exposition of the author's own studies, the book offers a number of interesting conclusions. No procedure for the mathematical determination of growth is entirely satisfactory. The determination of change in length is of more constant value than that of body weight. The characteristic separating the human from all other animal species is the second period of accelerated growth starting at puberty. There is no constant relation between increase in length and in weight. For instance, in the preschool age children gain relatively more rapidly in length than in weight, while during the later school years the reverse is true. There are also changed relations during the different seasons. The influence of any especial food on growth is not definite. Qualitative or quantitative undernutrition affects growth, depending on the duration and severity of the hunger and, above all, on the age of the individual. Should extreme hunger occur in the first few weeks of life, as a rule normal averages will never be reached. Weight is affected sooner and more decidedly than length. The undernutrition in the war resulted in manifest changes as regards both weight and length. During the reparation period, the resumption of the length growth was startling, and greatly overbalanced the weight. The book contains a large amount of material and should appeal to those having a technical and scientific interest in the mathematical determination of body growth.

DISEASES OF THE EYE. A Manual for the Practitioner. By Henry Kirkpatrick, M.B. Cloth. Pp. 132, with 28 illustrations. Calcutta: Butterworth & Co., 1925.

The preface states that "the object of this book is to enable the general practitioner, especially one practicing in remote parts, to render serviceable first aid to such sufferers from diseases of the eye as he may encounter in the course of his work." In every respect the book lives up to this statement, and it furnishes a veritable mine of information for the medical man who has not specialized in ophthalmology. The descriptions are clear cut and in simple language; the word pictures are ample, but not verbose; and the curative measures proposed are such as lie within the power of administration by any medical man. Unnecessary technicalities are avoided, so that the general man is not confused by inconsequential points of differential diagnosis. Of course, ophthalmologists will differ with the author on certain points, for example, the influence of an uncorrected error of refraction on the development of a hordeolum or even a chalazion; but, in the main, he enunciates truths. A limited amount of space is given to a brief description of the technic of certain necessary operations that a man in a remote district might be called on to perform. These descriptions are brief and to the point, but sufficiently clear. It is interesting to note that his choice of operations was undoubtedly influenced by his long residence in India and the character of the work that he was there forced to do. The last seven pages are devoted to an ophthalmic pharmacopeia in a readily usable form. The quality of paper and the printing of the book leave a good deal to be desired, but this is soon forgotten in a consideration of the value of the text.

PRINCIPLES OF PHARMACY. By Henry V. Arny, Ph.M., Ph.D., F.C.S., Professor of Chemistry in the College of Pharmacy of Columbia University. Third edition. Cloth. Price, $8 net. Pp. 1078, with 289 illustrations. Philadelphia: W. B. Saunders Company, 1926.

This book is written primarily for students of pharmacy, but it contains much material with which physicians should be familiar. The present edition is based on the new tenth revision of the U. S. Pharmacopeia. It covers practically the entire field of pharmacy, including the chemistry, physics and even botany of drugs.

OPERATIVE CYSTOSCOPY. By E. Canny Ryall, F.R.C.S., Founder of and Senior Surgeon to All Saints' Hospital for Genito-Urinary Diseases, London. Cloth. Price, $25. Pp. 47, with 670 illustrations. St. Louis: C. V. Mosby Company, 1925.

Up to now the beginner in operative cystoscopy had to rely on self-tuition as the only possibility in instruction. This book answers the cry for practical study and embodies the results of long and progressive work. Its publication will prove of the greatest value to the budding specialist. It is the first volume of its kind that has been published in any language, and it fills a great gap in the teaching of intravesical procedures. The text is concise; if any adverse criticism could be given, too concise; yet it is clear, to the point and comprehensive in its subject matter. The pages on local anesthesia are interesting, but one could hardly follow the author in his indiscriminate use of cocaine; American urologists have almost entirely discarded cocaine in favor of procaine. The various points in technic for the removal of ureteral calculi are most ingenious and might well be tried and added to those in general use. The author has devised many instruments which are appealing in the logic of their employment and at the same time simple in their manipulation in the hands of the experienced cystoscopist. Cystoscopic litholapaxy, although not entirely new, is so well and thoroughly illustrated as to make the procedure a rela-

tively simple one. The many plates on diathermy and high frequency in their various uses and their various progressive stages of treatment make probably the most valuable group in this large volume. The subject is dealt with in detail, and if for no other reason, argues strongly for the book as an adjunct to the urologist's armamentarium. The text on this subject is given in full and practical detail. Each colored plate throughout the book is an artistic painting true to the pathologic picture it portrays. Their number is legion and the greatest value in them are the progressive stages of the various treatments and their results. The book will be invaluable to the beginner in operative cystoscopy, and might well be used for reference by those more experienced.

PLASTIC SURGERY OF THE NOSE. By J. Eastman Sheehan, M.D., F.A.C.S., Associate Surgeon and Lecturer to the International Clinic of Otorhinolaryngology and Facio-Maxillary Surgery, Paris. With a Foreword by John F. Erdmann, M.D., F.A.C.S., Professor of Surgery, New York Post-Graduate Medical School and Hospital. Cloth. Price, $10. Pp. 249, with 186 illustrations. New York: Paul B. Hoeber, Inc., 1925.

This book is based on the author's six years' experience in plastic surgery. About half of the text is devoted to cosmetic correction of nasal deformities. Since plastic surgery is really not a new branch of surgery, but dates from the time of Celsus and Tagliocozzi, we do not look for anything triumphantly new. Naturally, since the development of this field in the war, we may expect a great improvement in the way of modifications and technic, but the fundamental principles remain the same. The author makes a plea for professionalism instead of amateurism in the field of plastic surgery, and this point is well taken; for it should be stressed that work in this field should be in the hands of those who have made a special study of it. One must take exception to the author's feeling that the patient is continuously under observation by others and his failure to bring out that in the greater number of cases the patient is under the observation of himself. The author has divided the text into fifteen chapters titled as to his own inclination, featuring the columellar incision as an original operation. It is not well understood just what the reason was for giving the deflection of the septum a chapter in such a book, particularly as no relation of the septal deformity to plastic surgery of the nose is indicated. The technic is simply outlined and illustrated, but more should have been said about the unusual results and complications, as the simplicity of words may lead to a light-hearted attempt on the part of the reader to follow the methods, wholly unaware of the pitfalls. However, the author has in mind the abuse of this type of surgery when he says, "I would like this handbook to exemplify the conviction that in even the simplest cases of repair, whatever in surgery is worth doing is worth doing as well as it can be done and that it ought to be attempted only by those whose knowledge and training have been such as to justify the undertaking."

GRUNDRISS DER HEILPÄDAGOGIK. Von Dr. Phil. Theodor Heller, Direktor der heilpädagogischen Anstalt Wein-Grinzing. Third edition. Paper. Price, 15 marks. Pp. 765, with illustrations. Leipsic: Wilhelm Engelmann, 1925.

This textbook on nervous and mental disorders of children, with especial reference to the problems of special pedagogy, is a thorough review of the German literature (with scant knowledge of the vast American literature on the subject) and contains a valuable bibliography. Many chapters are unnecessarily long, containing classification after classification and too numerous definitions. The first 500 pages comprise a textbook on mental deficiency with three chapters on special pedagogy and institutional training. Part II (about 300 pages) deals with nervous and psychopathic children, their pedagogic therapy and prophylaxis. It is as complete as part I and includes a critical summary of the contributions of the psychanalysts. In his introduction, Heller outlines his policy in regard to the mental problems that belong legitimately to the heilpedagogue (therapy teacher). The "therapy pedagogue" should be utilized wherever a specialized type of teaching is required, as in the deaf, blind and feebleminded. At first his rôle was limited to feeblemindedness. Now, says Heller, it extends to all abnormal children, in whom the abnormal function can be directed by "individually applied developmental conditions." This would appear to include everything in child psychiatry except the rare cases of juvenile psychoses. Heller is quite insistent on this point: "Not only in disturbances of intelligence but also in the affect and volitional life are the services of Heilpädagogie required." From the medical point of view, the services of the special educator are limited to the purely pedagogic phase of nervous or mental disease. To take an example from organic medicine, the diagnosis of deafness and its medical treatment is performed by the physician, the teaching of lipreading by the heilpedagogue. Such methods of therapy as have evolved out of the physician's particular experience and diagnostic skill can safely be entrusted to him alone and are part and parcel of his general armamentarium. This includes hypnosis, psychanalysis, and other forms of specialized psychotherapy. Certainly the educator and the psychologist are coming more and more into fields previously considered the domain of the physician. As long as the patient profits, so much the better. The danger lies chiefly in attempting to include cases for which they have no training.

MANUAL OF HYGIENE AND PUBLIC HEALTH. A Text Book for Medical and Public Health Students. By Jahar Lal Das, D.P.H. Offg. Asst. Director of Public Health, Bihar & Orissa. With an introduction by Lieut.-Colonel W. C. Ross, M.B., Ch.B., D.P.H., Director of Public Health, Bihar and Orissa. Cloth. Price, 10 shillings, 6 pence net. Pp. 634, with 105 illustrations. London: Butterworth & Co., 1925.

The progress of public health in India is of interest to all the world. Dr. Das' book appears about a year after the fourth edition of a similar volume in which he collaborated. The subjects usually included in a manual on public health are discussed. On the whole, these discussions are well written; but in some cases details of laboratory procedures are so fully given that the reader loses the more fundamental aspects of the problems. The temperature for milk pasteurization is given as 167 F. This is some 20 degrees higher than American practice, and such a temperature would be impracticable in this country. It is of interest to note that the infant mortality rate in Calcutta for 1921 was 330, and for 1922, 287. The author believes that early marriages and improper attendance during labor are largely responsible for this excessive rate. The expectation of life in India is also far below that of European countries: 22.59 at time of birth in India, as against 46.04 for England in 1911. The book contains much material on foods, but perhaps this is justified by local conditions. A fuller discussion of the infant welfare problem would be of interest.

PATHOLOGY OF THE MOUTH. By Frederick B. Moorehead, M.S., D.D.S., M.D., Dean of the Department of Oral Surgery and Pathology, College of Dentistry, University of Illinois, and Kaethe W. Dewey, M.D., Assistant Professor of Pathology, College of Dentistry, University of Illinois. Cloth. Price, $7 net. Pp. 640, with 213 illustrations. Philadelphia: W. B. Saunders Company, 1925.

The authors state that they have treated the subject of the mouth in both its local and its interdependent relations, its primary and secondary lesions, and that while there is a scattered literature on the subject, this is the first time it has been treated in its entirety in a single volume. This is true so far as publications in English are concerned. The method of treatment is such that a better title or subtitle would have been: Etiology, symptomatology, relationship and pathology of the diseases of the mouth. Part I deals with general diseases; part II, with tumors. The best chapter is the one about giant cell tumors, and one of the weaker chapters is the one concerning pyorrhea. It would appear that the authors had not been able to suppress their own interests for the sake of a better balanced text. A bibliography of 505 titles is appended; while this is more elaborate and more nearly complete than those found in most domestic dental textbooks, it is poorly arranged and there are numerous discrepancies between it and the text. The accuracy of some statements may well be questioned as: "Angina syphilitica is the most frequent form of secondary syphilis of the mouth," and "Uremia favors the development of pyorrhea." The arrangement in many places could have been improved; e. g., mixed cell tumors are discussed in three different chapters. One wonders why the necrosis of the jaw bones due to radioactivity was not discussed in either chapter 8 or chapter 24. The illustrations, on the whole, are well chosen and tech-

nically excellent, though a few either do not represent at all what the legends indicate or represent them unsatisfactorily, as figures 10, 20, 43 and 151. Credit has been acknowledged to individuals for material used in illustrations in certain cases in which it would have been in better taste to credit the institutions from which the specimens were borrowed. The volume deserves careful study by all those interested in pathologic conditions of the mouth.

MAN: HIS MAKING AND UNMAKING. By E. Boyd Barrett, M.A., Ph.D. Cloth. Price, $2.50. Pp. 269. New York: Thomas Seltzer, 1925.

This is a book of rather loose structure in which a multitude of assertions are made with a lack of relating background. There is a religious tinge to the general atmosphere of the book, and yet the author tells the church that an effort must be made to understand man instead of expecting blind obedience. The personality chapters at the end of the book are much its best features. However, there is merely a suggestion of what the problem is in each case, with no thorough analysis.

DIE URSACHE DES CARCINOMS. Von Prof. R. P. Van Calcar. Aus dem bacteriologisch-hygienischen Laboratorium der Universität Leiden. Paper. Pp. 66, with 45 illustrations. Leiden: S. C. Van Doesburgh, 1926.

This is an attempt to revive the theory that cancer represents a symbiosis of protozoa and cancer cells. The author believes that achylia is a predisposing factor. The arguments advanced are not convincing to those not committed to this theory of the causation of cancer.

Books Received

Books received are acknowledged in this column, and such acknowledgment must be regarded as a sufficient return for the courtesy of the sender. Selections will be made for more extensive review in the interests of our readers and as space permits.

DIE SCHÄDIGUNGEN DER HAUT DURCH BERUF UND GEWERBLICHE ARBEIT. Herausgegeben von Obermedizinalrat Dr. Karl Ullmann, Privatdozent an der Universität in Wien. In Gemeinschaft mit Dr. Moriz Oppenheim, Primararzt und Professor an der Universität in Wien, und Obermedizinalrat Dr. J. H. Rille, o. Professor an der Universität in Leipzig. Band II, Lieferung 5-8. Paper. Price, 24 marks. Pp. 384, with 98 illustrations. Leipsic: Leopold Voss, 1926.

Industrial skin diseases due to formaldehyde and coal tar derivatives.

LEHRBUCH DER SPEZIELLEN PATHOLOGIE UND THERAPIE DER INNEREN KRANKHEITEN. Für Studierende und Aerzte. Von Professor Dr. Med. Adolf Strümpell, Direktor der medizinischen Klinik der Universität Leipzig. Erster Band. Von Professor Dr. Med. et Phil. Carly Seyfarth, Assistent an der medizinischen Klinik der Universität Leipzig. Twenty-fifth edition. Paper. Price, 50 marks. Pp. 872, with 147 illustrations. Leipsic: F. C. W. Vogel, 1926.

Twenty-fifth edition of standard German textbook.

AN ELEMENTARY COURSE IN TROPICAL HYGIENE. Part II. By Mary G. Blacklock, M.B., B.Sc., D.T.M., Lady Medical Officer, Sierra Leone, West African Medical Service. Preface by Andrew Balfour, C.B., C.M.G., M.C., Director, London School of Hygiene and Tropical Medicine. Paper. Price, 2 shillings, 6 pence net. Pp. 108, with 33 illustrations. London: John Bale, Sons & Danielsson, Ltd., 1926.

Part two of popular book on tropical hygiene.

BUCHANAN'S TEXT-BOOK OF FORENSIC MEDICINE AND TOXICOLOGY. By John E. W. MacFall, M.D., D.P.H., M.B., Professor in Forensic Medicine and Toxicology, University of Liverpool. Ninth edition. Cloth. Price, $5. Pp. 445, with 57 illustrations. New York: William Wood & Co., 1925.

Ninth edition of standard British work based on British medicolegal procedure.

TRIAL OF THE SEDDONS. Edited by Filson Young. Second edition. Cloth. Price, 10 shillings, 6 pence net. Pp. 420, with 3 illustrations. Edinburgh: William Hodge & Co., Ltd., 1925.

Report of a famous British murder trial in which the Marsh test for arsenic played the leading rôle.

TRIAL OF DR. PRITCHARD. Edited by William Roughead, Writer to the Signet. Cloth. Price, 10 shillings, 6 pence net. Pp. 343, with illustrations. Edinburgh: William Hodge & Co., Ltd., 1925.

Dr. Pritchard, quack, murders many with aconite.

FACTS ON THE HEART. By Richard C. Cabot, M.D., Professor of Medicine and of Social Ethics at Harvard University. Cloth. Price, $7.50 net. Pp. 781, with 163 illustrations. Philadelphia: W. B. Saunders Company, 1926.

Clinical records of 1,906 cases of heart disease, with general consideration.

TRIAL OF OSCAR SLATER. Edited by William Roughead. Second edition. Cloth. Price, 10 shillings, 6 pence net. Pp. 306, with illustrations. Edinburgh: William Hodge & Co., Ltd., 1925.

A murder trial in which every aspect of the psychology of personal identification was considered, reported by a master of criminal reporting.

PSYCHOTHERAPY. Mental Elements in the Treatment of Disease. By Edward Wyllys Taylor, James Jackson Putnam Professor of Neurology in Harvard University. Harvard Health Talks, 14. Cloth. Price, $1. Pp. 53. Cambridge: Harvard University Press, 1926.

Well written historical review, with emphasis on need of scientific medical education on mental healing.

BACTERIOLOGY AND APPLIED IMMUNOLOGY FOR NURSES. By Robert A. Kilduffe, A.B., A.M., M.D., Director, Laboratories, Atlantic City Hospital. Leather. Price, $2. Pp. 252, with 79 illustrations. Milwaukee: Bruce Publishing Company, 1926.

Nurse's textbook with much information that a nurse need not know.

DIE CHIRURGISCHE BEHANDLUNG DER LUNGENTUBERKULOSE. Erfahrungen und kritische Betrachtungen. Von Dr. A. Bruner, Oberarzt an der chirurgischen Universitäts-Klinik, München, und Dr. G. Baer, Oberarzt der Fürsorgestelle für Lungenkranke, München. Paper. Price, 3.60 marks. Pp. 65, with 13 illustrations. Berlin: Julius Springer, 1926.

Monograph on thoracoplasty for tuberculosis.

ANIMAL PARASITES AND HUMAN DISEASE. By Asa C. Chandler, M.S., Ph.D., in charge, Hookworm Research Laboratory, School of Tropical Medicine, Calcutta, India. Third edition. Cloth. Price, $4.50 net. Pp. 573, with 254 illustrations. New York: John Wiley & Sons, Inc., 1926.

Third edition of a well written and popular work.

TRIAL OF WILLIAM PALMER. Edited by George H. Knott, Barrister-at-Law. Second edition. Revised by Eric R. Watson, Barrister-at-Law. Cloth. Price, 10 shillings, 6 pence net. Pp. 348, with illustrations. Edinburgh: William Hodge & Co., Ltd., 1925.

A surgeon, turned murderer, uses strychnine as an agent.

HUMAN METABOLISM WITH ENEMATA OF ALCOHOL, DEXTROSE, AND LEVULOSE. By Thorne M. Carpenter. Paper. Pp. 197, with 91 charts. Washington: Carnegie Institution of Washington, 1925.

Concludes that rectal feedings are absorbed and utilized without aid of secretions of upper digestive tract.

DAS SPUTUM. Von Professor Dr. Heinrich von Hoesslin. Second edition. Paper. Price, 66 marks. Pp. 485, with 130 illustrations. Berlin: Julius Springer, 1926.

Complete consideration of bacteriology and laboratory study of sputum.

METHODIK DER UNTERSUCHUNGEN VON NERVENELEMENTEN DES MAKRO- UND MAKRO-MIKROSKOPISCHEN GEBIETES. Teil I. Von Prof. Dr. W. Worobiew. Paper. Pp. 130, with 39 illustrations. Berlin: Oscar Rothacker.

Research on staining of tissues of nervous system.

PEDIATRIC NOTES. By Wilburt C. Davison. Second edition. Cloth. Price, $1.25. Pp. 81. Baltimore, 1926.

Practice notes on Johns Hopkins methods of infant feeding and infant care.

TRIAL OF GEORGE HENRY LAMSON. Edited by Hargrave L. Adam. Cloth. Price, 10 shillings, 6 pence net. Pp. 192, with illustrations. Edinburgh: William Hodge & Co., Ltd., 1913.

Another medical murderer who used aconitine.

THE MEDICAL DEPARTMENT OF THE UNITED STATES ARMY IN THE WORLD WAR. Volume VIII. Field Operations. Prepared under the direction of Maj. Gen. M. W. Ireland, the Surgeon General. By Col. Charles Lynch, M.C., Col. Joseph H. Ford, M.C., Lieut. Col. Frank W. Weed, M.C. Cloth. Pp. 1097, with illustrations. Washington: Government Printing Office, 1925.

TABULAE BIOLOGICAE. Herausgegeben von C. Oppenheimer und L. Pincussen. Band II. Thermochemie. Physikalische Chemie der Fermente. Elektrizität u. Elektrochemie. Strahlenlehre. Spezielle Biophysik. Sekrete. Paper. Price, $13. Pp. 567, with illustrations. Berlin: W. Junk, 1925.

JAARBOEK DER RIJKSUNIVERSITEIT TE GRONINGEN, 1924-1925. Paper. Pp. 135. Groningen: J. B. Wolters, 1925.

SELECTED CONTRIBUTIONS FROM THE PEKING UNION MEDICAL COLLEGE. Volume V. Paper. Peking, 1925.

Miscellany

THE GORILLA AND MAN

In a series of lectures at the Royal College of Surgeons, in London, Sir Arthur Keith said that two extinct species of mankind, the Neanderthal and Rhodesian, had their faces modeled on gorilline lines. Early opponents of Darwin's theory laid stress on the fact that the foot of man was provided with a special muscle—the peroneus tertius. There was now no doubt that this muscle, which had not yet become firmly fixed in man's structure, occurred as a variation or sport on the foot of the gorilla, but had never been observed in that of any other ape or animal. In two highland, or Kivu, gorillas recently dissected by Dr. Morton of Harvard University, this muscle was fully formed; it occurred occasionally, as had been noted by European anatomists, in the feet of the Gabun, or lowland, gorilla. The muscles of the calf of man's leg had certain peculiarities in their arrangements; occasionally the calf muscles of the gorilla made an approach toward the human disposition. Man's thumb had a special extensor muscle; it occurred as a sport in the thumb of the gorilla. On the inner side of man's upper arm was the fibrous remnant of a climbing muscle; on most gorillas this muscle was also in a degenerated state. Although the gorilla showed certain leanings toward man in its structure, yet, in this respect, it stood infinitely nearer to the chimpanzee than to man.

No one who had compared their bodies could doubt that the gorilla and the chimpanzee had risen from a common ancestor. Yet evolution had proceeded in their bodies and minds in opposite directions. In various breeds of chimpanzee there was a tendency for growth to stop short of the full point of maturity. The male chimpanzee, when its body reached about 10 stone (63.5 Kg.) in weight, stopped short, but that of the male gorilla went on until a solid weight of some 25 or 30 stone (from 160 to 190 Kg.) was reached. The highland, or Kivu, gorilla, which lived on the steep mountain sides of equatorial Africa, might weigh as much as 32 stone (203 Kg.). He was the giant of anthropoid apes. To explain why the chimpanzee had evolved in one direction and the gorilla in another, naturalists had to fall back on medical experience. When acromegaly was first observed, Dr. Harry Campbell was impressed by the resemblance presented by certain features to those of the gorilla. He sought to explain acromegaly in man as a reversion to an ancestral state. But it seemed more legitimate, in the present state of our knowledge of the action of hormones on the growth of the body, to regard gorilline characters, whether they occur as a normal manifestation in the life history of the gorilla, or as an abnormal manifestation in the life history of a person with acromegaly, as being due to an increased action of that element of the pituitary gland which influences the processes of growth.

The brain of man, said Keith, formed the climax of an ascending series from the marmoset through the gorilla. Between the highest gorilla and the lowest human brain we knew as yet only one intermediate stage—that of *Pithecanthropus*—and in size and pattern this brain has reached almost, if not quite, the threshold of humanity. The point of brain development reached by the human brain marked the furthest point attained by any primate, but in weight of body, volume of lung, size of tooth, massiveness of jaw and strength of muscles—particularly those of mastication—the gorilla crowned the primate series. Yet at birth the gorilla was smaller (under 5 pounds [2.3 Kg.] in weight) than the newborn child, and was just as nude and helpless. Its skull was as rounded and smooth as that of a human infant, and the muscles of mastication were no larger. The temporal muscles, for example, started from the same base line on the sides of the skulls of the gorilla, chimpanzee and man, but whereas the temporal muscles of the gorilla extended their origin until great bony crests were formed along the vault of the skull, those of the chimpanzee and of man stopped short of such an extreme. In man, the temporal muscles were arrested in their ascent at a stage corresponding to that reached by the gorilla in youth; in the chimpanzee, these muscles became arrested at a point reached by the gorilla in early adolescence. In man, the evolutionary tendency had been to retain more and more the structural characters of youth; in the gorilla, the tendency had been in the opposite direction—to increase the size of jaw and strength of body. In his evolutionary career, man had moved in the direction of brain, while the gorilla had moved in the direction of brawn. The evolutionary process which had produced such diverse forms from a common ancestor constituted at once the most enigmatic and also the most interesting experiment in the whole realm of nature.

THE TEACHING OF ROENTGENOLOGY

Organizers of special training courses for physicians in any given specialty always experience considerable difficulty in arranging the course of instruction so as to be adapted to the various talents and the widely differing degrees of preparation of the physicians who register for the course. That is peculiarly true of special training courses in a new science such as roentgenology. In the March number of *Radiology*, Dr. Guido Holzknecht, professor of medical roentgenology, tells how he endeavors to solve the problem in the teaching of roentgenology at the Central Roentgen Institute, Vienna, Austria.

The most important feature in the described scheme of instruction is the hour that the director of the institute spends in the initial examination of each applicant for the course as to his individual capacities and previous training. The examinations reveal at once that every applicant needs a different course of study. Holzknecht shows how the roentgenologic institutes of large hospitals can solve what at first seems impossible of solution, provided they do not lose sight of the original purpose of the institute, the best possible care of patients in need of roentgenologic treatment.

The division of the work of instruction among the technicians and the several assistants is the principle on which the individual instruction is based. The distinction between plate diagnosis and fluoroscopic diagnosis and therapy furnishes the basis for the first subdivision of the instruction, since it separates from the diagnostic point of view those with a surgical bent from those who are interested more particularly in internal medicine. The directors of those two departments, together with their assistants, perform their work in the presence of the pupils, while thinking aloud. "The pupils listen, offer aid, and eventually are allowed to participate independently, for direct practice is recognized as the fundamental principle applicable to their training." As opportunity offers, general courses for beginners and special courses for advanced pupils are held. The courses are not combined, even for short periods, as this has been found to be impracticable. Once a week informal conferences are held, which are attended particularly by the more advanced pupils. The books recommended for study vary with each pupil. To sum up, the four essential forms of instruction employed in the special training in roentgenology given physicians consist of: study of textbooks adapted to the individual's requirements; practical laboratory work, lecture courses and seminar. But no absolutely fixed schedule is followed. The method Professor Holzknecht describes seems

well adapted not only to the teaching of roentgenology but also, with modifications, to instruction in other medical specialties when the applicants, as is usually the case, vary greatly in ability, capacity and previous medical training.

Medicolegal

When and on Whom Demand for Necropsy Should Be Made

(Gath v. Travelers' Ins. Co. of Hartford, Conn. (Ohio), 149 N. E. R. 389)

The Supreme Court of Ohio, in reversing a judgment that was rendered in favor of the defendant in an action on a policy of accident insurance, says that a clause in the policy gave the company the right and opportunity to make a necropsy in case of death. It appeared that the agents of the company had knowledge, at least thirty hours before the burial, of the death of the insured, and entertained a belief that his death was caused by other than accidental means. The widow was the sole beneficiary under the policy, and continued to reside at the family home during the time between the death and the burial. A son who lived in Michigan was at the time at his mother's home, looking after the funeral arrangements. At no time between the death and the burial did the widow have any notice of a demand for a necropsy on the body of her husband. The notice which she received of that demand was received three days after the burial. A verbal demand had been made twice on the son, who each time unequivocally said that he would not notify his mother of the demand, but would assume all responsibility therefor. The court holds that the demand for a necropsy was not seasonably made by the agent of the insurance company, and was not made on the proper person. When the death is known to an agent of the insurer, a reasonable time before burial, who has justifiable grounds for entertaining the belief that such death was caused by other than accidental means, the demand for a necropsy, to be seasonable, must be made before burial. Where a widow living at the home is named as the sole beneficiary of the insured, under the opportunity clause of the policy such demand should be made on her. Verbal requests for opportunity to make a necropsy, made by an agent on the son before the burial, are not sufficient, where the son unequivocally notifies the agent that he will not, and in fact does not, communicate such requests to the widow beneficiary. Necropsy clauses, such as that in this case, are construed strictly by the courts in favor of the insured, and require a demand for a necropsy to be made before burial, especially when the death of the insured is known to the agents of the company, and it has reasonable grounds to believe that it was not caused by accidental means. Whether a court should authorize the disinterment of a body for purposes of a necropsy naturally depends on the peculiar circumstances arising in each case. The reported cases on the subject show that the courts very reluctantly permit any interference with human remains when once interred.

Death from Pneumonia After Septicemia from Lancing

(Cameron v. Massachusetts Protective Assn. (Mo.), 275 S. W. R. 988)

The Kansas City (Mo.) Court of Appeals, in affirming a judgment in favor of the plaintiff, who was the beneficiary under an accident insurance policy, says it thinks that there is no question but that if the insured, in lancing or cutting a pimple on his left forearm, unintentionally used an instrument having thereon an anaerobic germ, or germs, and that such germs were inserted into his system, the occurrence was an accident within the meaning of the policy. He intended to cut himself, but the insertion of the germs into his system was unintentional. There was testimony from which the jury might find that the pimple had been punctured by some instrument having on it germs which resulted in blood poisoning. The evidence showed that before the cutting of the pimple the insured was a man 40 years of age, strong physically, and in good health. There was nothing in the evidence to suggest that he would intentionally do such an unnatural thing as to insert deadly germs into his system; on the other hand, the presumption was to the contrary. There was testimony tending to show that the germs he inserted into his system caused the pneumonia from which he died, and there is no question but that the plaintiff was entitled to recover on the policy, which stated that it insured "against loss resulting from bodily injuries effected directly and independently of all other causes by accidental means (excluding self-destruction, or any attempt thereat, while sane or insane), and due solely to external, violent and involuntary causes, and leaving visible marks upon the body." The court does not agree with the contention that the provision of the policy "that this policy does not cover death due to disease, whether acquired accidentally or otherwise," prevented recovery in this case for the reason that the insured died of a disease. Various definitions of disease were given by the physicians who testified in this case, and that even a broken leg would be a disease. However, the defendant stated in its brief, "Of course, it was not intended in the present policy that a broken leg should be regarded as a disease"; and, with this admission, it seems to the court that the point falls. The construction to be given to this provision of the policy was that it meant that the insurer was not to be liable for death due to disease acquired accidentally save through "bodily injuries, effected directly and independently of all other causes by accidental means (excluding self-destruction, or any attempt thereat, while sane or insane), and due solely to external, violent and involuntary causes, and leaving visible marks upon the body." If this was the meaning, the facts in this case did not come within the exceptions.

Quarantine by Health Officer for Venereal Disease

(Ex parte Fisher (Calif.), 239 Pac. R. 1100)

The District Court of Appeal of California, First District, division 1, says that in this application for a writ of habeas corpus to secure the petitioner's release from quarantine, it appeared from the petition that the health officer of the city and county of San Francisco, after an examination, had ordered the petitioner quarantined at the county hospital, he having found her to be suffering with a gonococcus affliction. It was contended that such detention was unlawful, for the reason that such officer was without authority to control the body of the petitioner, such power residing alone in the state board of health. But section 2979a of the political code of California confers on health officers of every county or city and county the right to take such measures as may be necessary to prevent the spread of diseases of the character of which the petitioner was suffering. While the section does not in express terms confer on the officer in question the right to take possession or control of the body of one so afflicted, as it does in the case of the state board of health, the isolation of one afflicted with an infectious disease is a reasonable and proper measure to prevent its increase and spread. The petition showing on its face a legal cause of detention, the application for a writ of habeas corpus was denied.

Death from Puncturing Bowel in Medicating Hemorrhoids

(Hoosier Casualty Co. v. Royster (Ind.), 149 N. E. R. 164)

The Supreme Court of Indiana, in affirming a judgment in favor of the plaintiff, says that she, as beneficiary, brought this action on an accident insurance policy issued by the defendant company to her husband. The policy insured against injury resulting "necessarily, directly, and independently of all other causes from bodily injuries, effected through external, violent, and accidental means." The complaint alleged that the death of the insured was due to external, violent and accidental means in that he was afflicted with hemorrhoids and in treating them he used a tube for the introduction of medicine into the lower bowels, in doing which he accidentally and without intention on his part punctured the lower bowels with the tube, from which injury he sickened and on the fourth day after the accident died; that as visible marks of the injury there were the hole about one-fourth inch in diameter so punctured in the lower bowel and, in a short time after the injury, a swelling and hardening of the lower part of the abdomen. The evidence showed that the hemorrhoids extended about 2 inches up in the bowel,

and that an operation performed before the death of the insured showed that the injury in the lower bowel was about 10 inches above the opening; that the wall of the bowel about the injured place was in a healthy condition, and that there was no indication of any disease condition of the bowel at or near the puncture. A surgeon testified that in his opinion a person would not be able to withstand the pain long enough to puncture the bowel by steady pressure, manipulating the instrument himself, but that if, in inserting a tube, he got it against a fold of the bowel or some other obstruction, and the end of the tube should then slip and suddenly move more rapidly against the wall of the intestine, and strike it with force, that would cause such a puncture as was found; or, if a person had taken a sitting posture, and suddenly and accidentally put more weight on the tube than was intended, causing it to enter suddenly and with force, it could cause the wound that was found. The court thinks that a fair consideration of the evidence would indicate that, when the assured used this instrument which he had used before to medicate his hemorrhoids, something accidental and unexpected did occur; that was that the instrument was, on account of some unexpected occurrence, while he was using it, unintentially inserted beyond the place where the medicine was intended to be used, and the injury thus produced. Wherefore the court holds that the death of the insured occurred through external, violent and accidental means, within the meaning of the policy on which this action was brought; and that the finding of the trial court in favor of the plaintiff was sustained by sufficient evidence, and was not contrary to law.

Insane and Other Delusions of Testators

(Burris et al. v. Burris et al. (Ky.), 276 S. W. R. 820)

The Court of Appeals of Kentucky, in affirming a judgment allowing the probate of a will, says that none of the facts relied on to constitute an insane delusion measured up to the legal requirements necessary for its creation. It is the law that if a testator at the time he executes his will is laboring under some insane delusion with reference to a matter relevant to his free agency to act in disposing of his property by will, his testamentary disposition will be set aside therefor as not having been his free and untrammeled act. The pertinent question then is, whether there is evidence of such insane delusion as to produce that effect. If there is, it then becomes the duty of the court to submit it to the jury by a proper instruction. In determining the first proposition, it is well to remember that it is not every delusion under which a testator may be laboring that rises to the dignity of an insane delusion so as to invalidate his will; for an opinion, conclusion, or impression as to the existence of certain facts entertained by him, though founded on false premises or untrue surmises, is a delusion but not necessarily an insane one. One may be deluded into such erroneous beliefs by vague and insufficient evidence, without possessing any of the symptoms of insanity, and when his delusion produces no disease of his mind or in anywise dethrones his reason. In such case the possessor of the delusion labors only under a misconception of the facts without any impairment of his mentality.

An insane delusion, such as to render a will invalid, is defined by the authors writing on the subject:

> As a belief in things which do not exist, and which no rational mind would believe to exist. The essence of an insane delusion is that it has no basis in reason and cannot be dispelled by reason. The subject-matter must have no foundation in fact, for there is no such thing as a delusion founded on facts. It must not be founded on evidence, for if there is any evidence, however slight or inconclusive, which might have a tendency to create the belief, such belief is not a delusion. Nor can one be said to act under an insane delusion if this condition of mind results from an inference or a process of reasoning, however illogical, drawn from facts which are shown to exist. A delusion is therefore to be distinguished from a mere mistaken opinion. An insane delusion is not established when the court is able to understand how a person situated as the testator was might have believed all that the evidence shows that he did believe and still have been in full possession of his senses. A false belief, even in facts which actually did not exist, or a belief which a rational person may entertain, does not constitute an insane delusion. Nor are absurd opinions, however unfounded, insane delusions.—22 R. C. L. 102, 103, par. 54.

That definition is approved by all the courts of the country, including this one, under the varying facts of each particular case.

Society Proceedings

COMING MEETINGS

American Association of Genito-Urinary Surgeons, Hot Springs, Va., May 10-12. Dr. H. G. Bugbee, 40 E. 41st Street, New York, Secretary.
American Association of Industrial Physicians and Surgeons, Philadelphia, May 24-26. Dr. F. L. Rector, 22 East Ontario Street, Chicago, Secretary.
American Bronchoscopic Society, Montreal, Canada, May 29. Dr. Henry B. Orton, 671 Broad Street, Newark, N. J., Secretary.
American Child Health Association, Atlantic City, May 17-22. Dr. S. J. Crumbine, 370 7th Ave., New York City, Secretary.
American Dermatological Association, Philadelphia, May 27-29. Dr. C. Guy Lane, 416 Marlborough Street, Boston, Secretary.
American Gastro-Enterological Association, Atlantic City, May 3-4. Dr. John Bryant, 338 Marlborough Street, Boston, Secretary.
American Gynecological Society, Stockbridge, Mass., May 20-22. Dr. A. H. Curtis, 104 S. Michigan Ave., Chicago, Secretary.
American Laryngological Association, Montreal, Canada, June 3-5. Dr. George M. Coates, 1811 Spruce Street, Philadelphia, Secretary.
American Laryngological, Rhinological, and Otological Society, Montreal, Canada, May 31-June 2. Dr. Robert L. Loughran, 145 West 58th Street, New York, Secretary.
American Neurological Association, Atlantic City, June 1-3. Dr. Henry A Riley, 870 Madison Avenue, New York, Secretary.
American Ophthalmological Society, Hot Springs, Va., June 14-16. Dr. Emory Hill, Professional Building, Richmond, Va., Secretary.
American Otological Society, Montreal, Canada, May 31-June 3. Dr. Harold Walker, 390 Commonwealth Avenue, Boston, Secretary.
American Pediatric Society, Niagara Falls, Canada, May 31-June 2. Dr. Howard Childs Carpenter, 1805 Spruce Street, Philadelphia, Secretary.
American Psychiatric Association, New York City, June 8-11. Dr. Earl D. Bond, 4401 Market Street, Philadelphia, Secretary.
American Psychopathological Association, New York City, June 11. Dr. Sanger Brown II, 173 East 70th Street, New York City, Secretary.
American Roentgen Ray Society, Detroit, May 18-22. Dr. C. L. Martin, Baylor Hospital, Dallas, Texas, Secretary.
American Society of Clinical Investigation, Atlantic City, May 3. Dr. J. H. Austin, University of Pennsylvania, Philadelphia, Secretary.
American Surgical Association, Detroit, May 24-26. Dr. R. B. Greenough, 8 Marlborough Street, Boston, Secretary.
American Therapeutic Society, Philadelphia, June 10-12. Dr. W. J. Mallory, 1720 Connecticut Ave., N. W., Washington, D. C., Secretary.
American Urological Association, Boston, May 17-19. Dr. H. G. Hamer, 723 Hume-Mansur Building, Indianapolis, Ind., Secretary.
Arkansas Medical Society, Hot Springs, May 18-20. Dr. W. R. Bathurst, 810 Boyle Building, Little Rock, Secretary.
Association of American Physicians, Atlantic City, May 4-5. Dr. F. W. Peabody, Boston City Hospital, Boston, Secretary.
Conference of State and Provincial Health Authorities, Atlantic City, N. J., May 21-22. Dr. Richard M. Olin, State Commissioner of Health, Lansing, Mich., Secretary.
Connecticut State Medical Society, New Haven, May 19-20. Dr. C. W. Comfort, Jr., 27 Elm Street, New Haven, Secretary.
Florida Medical Association, Gainesville, May 3-5. Dr. Shaler Richardson, 111 W. Adams Street, Jacksonville, Secretary.
Georgia, Medical Association of, Albany, May 12-15. Dr. A. H. Bunce, 65 Forrest Avenue, Atlanta, Secretary.
Illinois State Medical Society, Champaign, May 18-20. Dr. H. M. Camp, Lahl Building, Monmouth, Secretary.
Iowa State Medical Society, Des Moines, May 12-14. Dr. T. B. Throckmorton, Bankers Trust Building, Des Moines, Secretary.
Kansas Medical Society, Kansas City, May 4-6. Dr. J. F. Hassig, 804 Elks Building, Kansas City, Secretary.
Maine Medical Association, Poland Springs, June 10-12. Dr. B. L. Bryant, 265 Hammond Street, Bangor, Secretary.
Massachusetts Medical Society, Springfield, June 8-9. Dr. W. L. Burrage, 182 Walnut Street, Brookline, Secretary.
Medical Library Association, Ann Arbor, Mich., June 8-9. Miss Harriet Wilson, 535 North Dearborn Street, Chicago, Secretary.
Minnesota State Medical Association, St. Paul, May 17-19. Dr. E. A. Meyerding, 11 W. Summit Avenue, St. Paul, Secretary.
Mississippi State Medical Association, Jackson, May 11-13. Dr. T. M. Dye, McWilliams Building, Clarksdale, Secretary.
Missouri State Medical Association, St. Louis, May 17-20. Dr. E. J. Goodwin, 901 Missouri Building, St. Louis, Secretary.
National Association for the Study of Epilepsy, New York City, June 7-8. Dr. A. L. Shaw, 108B The Albiston, Utica, N. Y., Secretary.
Nebraska State Medical Association, Omaha, May 11-13. Dr. R. B. Adams, McKinley Building, Lincoln, Secretary.
New Hampshire Medical Society, Concord, May 25-26. Dr. D. E. Sullivan, 7 North State Street, Concord, Secretary.
New Jersey, Medical Society of, Atlantic City, June 17-19. Dr. J. B. Morrison, 97 Halsey Street, Newark, Secretary.
New Mexico Medical Society, Albuquerque, May 19-21. Dr. C. M. Yater, 310 N. Richardson Avenue, Roswell, Secretary.
North Carolina, Medical Society of the State of, Wrightsville Beach, June 15-17. Dr. L. B. McBrayer, Southern Pines, Secretary.
North Dakota State Medical Association, Minot, May 25-26. Dr. A. J. McCannel, Minot, Secretary.
Ohio State Medical Association, Toledo, May 11-13. Mr. Don K. Martin, 131 E. State Street, Columbus, Executive Secretary.
Oklahoma State Medical Association, Oklahoma City, June 22-24. Dr. C. A. Thompson, 609 Barnes Building, Muskogee, Secretary.
Rhode Island Medical Society, Providence, June 3. Dr. J. W. Leech, 369 Broad Street, Providence, Secretary.
South Dakota State Medical Association, Aberdeen, May 19-20. Dr John F. D. Cook, Langford, Secretary.
Tennessee State Medical Association, Memphis, May 11-13. Dr. J. F. Gallagher, Jackson Building, Nashville, Secretary.
Texas, State Medical Association of, Houston, May 24-27. Dr. Holman Taylor, 207½ West 11th Street, Fort Worth, Secretary.
Utah State Medical Association, Salt Lake City, May 6-8. Dr. F. B. Steele, Boston Building, Salt Lake City, Secretary.
West Virginia State Medical Association, Morgantown, May 25-27. Mr. S. O. Neale, 211 Smallridge Building, Charleston, Executive Secretary.

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers to THE JOURNAL in America for a period of three days. No foreign journals are available prior to 1921, nor domestic prior to 1923. Periodicals published by the American Medical Association are not available for lending, but may be supplied on order. Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested).

Titles marked with an asterisk (*) are abstracted below.

American Journal of Obstetrics and Gynecology, St. Louis

11: 147-286 (Feb.) 1926

*Nature of Chronic Appendicitis. A. E. Hertzler, Halstead, Kan.—p. 155.
Inversion of Uterus. L. E. Phaneuf, Boston.—p. 171.
Five Kinds of Chronic Appendicitis. R. T. Morris, New York.—p. 180.
Appendicitis in Pregnancy. G. D. Royston and A. O. Fisher, St. Louis. —p. 184.
*Prolapse of Placenta. M. P. Rucker, Richmond, Va.—p. 189.
*Treatment of Placenta Praevia Based on 303 Consecutive Cases. F. S. Kellogg, Boston.—p. 194.
Indications for Cesarean Section. B. Van Sweringen, Fort Wayne, Ind. —p. 201.
Occiput Posterior. P. W. Toombs, Memphis, Tenn.—p. 206.
Relation of Physiology and Mechanics to Management of Labor. W. A. Fowler, Oklahoma City.—p. 212.
*Preparation of External Genitalia for Delivery with Iodine-Alcohol. B. Lankford, Norfolk, Va.—p. 219.
*Treatment of Edema of Toxemia of Pregnancy with Ammonium Chloride. R. D. Mussey, Rochester, Minn.—p. 222.
*Intramuscular Injection of Magnesium Sulphate for Control of Convulsions in Eclampsia. L. Dorsett, St. Louis.—p. 227.
Prevention of Stillbirths. C. R. Hannah, Dallas, Texas.—p. 231.
Case of Mesenteric Cyst. E. D. Clark, Indianapolis.—p. 238.

Nature of Chronic Appendicitis.—Hertzler's opinions are based on an examination of more than 3,000 appendixes. He says: "Fibrotic changes in the appendix, no matter of what degree, are not attended by clinical symptoms. The anatomic structure of appendixes commonly removed under the diagnosis of chronic appendicitis shows no variation from the appendixes of individuals suffering from no abdominal complaint whatsoever. The minimal changes alleged to be present in cases of so-called chronic appendicitis are wholly inadequate to explain the symptoms ascribed to them considered in the light of like changes in other organs of the body. Mere alleged relief after the removal of the appendix of symptoms is not sufficient to prove that the appendix was the cause of the symptoms. The vast majority of patients so operated on do not even claim relief of their symptoms. The symptoms alleged to be due to chronic appendicitis can be relieved by searching out the actual cause and by removing it, relieving the patient without molesting the appendix."

Prolapse of Placenta.—Rucker relates the case of a septipara, aged 28, pregnant, who suddenly felt faint and began to bleed. She walked home, a distance of one-half mile, without difficulty. After getting home she began to have pains and the bleeding commenced again and continued until the placenta was expelled at 3 a. m. It was devoid of membranes, except at one edge where there was a little tag about 3 by 7 cm. The attachment of the cord was eccentric. The fetal surface of the placenta was smooth and glistening, and there were no torn blood vessels. The maternal surface was apparently intact. It was somewhat lobulated. There was an oval area about one fourth the total area of the placenta extending to the periphery that was distinctly darker and firmer than the rest of the organ. A dead baby was born fifty minutes later. It weighed 3,175 Gm. Ossification was complete. Nothing unusual was found at necropsy.

Treatment of Placenta Praevia.—Kellogg asserts that all central and partial praevias are best treated by low abdominal cesarean section, whether the baby is viable or nonviable, living or dead. Marginal praevia is best treated by Voorhees' bag induction. Moribund or very sick patients with placenta praevia should be rested, and bleeding controlled by necessary methods, including tight cervical and vaginal pack and pressure over and above the fundus; transfusion and operation should be done on pulse and pulse pressure reaction, and then retransfusion done. It should always be the effort to ascertain as nearly as possible how much blood has been lost and to replace that amount as nearly as possible. Hysterectomy following section should be practiced frequently, each case to be considered by itself on the following grounds: risk of sepsis from previous history, persistent bleeding following the section, and number of dependent children at home. If a woman has several, as is usually the case, hysterectomy seems to improve her chances, and should unhesitatingly be done.

Preparation of External Genitalia for Delivery.—Lankford regards the 3.5 per cent iodine-alcohol or the 4 per cent mercurochrome method of preparation of the genitalia for delivery a procedure that is safer than any yet advanced; each is simple and can be used by any one who will take the trouble to have the solutions prepared shortly before expected delivery. The iodine-alcohol method would seem to be the simpler of the two, as it can be used with effect as late as five minutes before delivery, whereas the use of mercurochrome is advised at least one hour before any operative procedure.

Ammonium Chloride in Toxemia of Pregnancy.—In these cases of edema of toxemia of pregnancy, Mussey gives ammonium chloride in 1.5 Gm. doses in gelatin coated capsules. Up to 10 Gm. is given daily, even after diuresis has been effected, and if possible until the edema disappears. Usually a total of from 50 to 100 Gm. of ammonium chloride was given. The patient is also kept in bed on a 1,500 calory diet containing 50 Gm. protein, with a minimum of salt, and 800 cc. of fluid. Following the disappearance of the edema, the fluid intake was increased.

Control of Convulsions.—The intramuscular injection of magnesium sulphate, in 15 cc. doses, Dorsett says, will control the convulsions of eclampsia and decreases the intracranial pressure by relieving the cerebral edema, stimulates diuresis, and aids in the diminution of the general edema. He uses a triple crystallized sterile, nonanhydrous solution, put up in 15 cc. ampules. The frequency of administration is regulated entirely by the frequency and severity of the convulsions and the general condition of the patient. There has as yet been no respiratory disturbance of any kind. Several of the patients have received as high as 100 cc. of the drug within twenty hours without any perceptible reaction.

Arkansas Medical Society Journal, Little Rock

22: 203-215 (Feb.) 1926

Complicated Tonsillectomies. R. H. T. Mann, Texarkana.—p. 203.
Differential Diagnosis of Early Pulmonary Tuberculosis and Early Thyrotoxicosis. S. J. Wolfermann, Fort Smith.—p. 204.
Model Technician. T. Wenzel, Little Rock.—p. 207.

Atlantic Medical Journal, Harrisburg, Pa.

29: 283-362 (Feb.) 1926

Prevention of Heart Disease. A. Lambert, New York.—p. 283.
Present Status of Function Tests of Liver. W. J. Fetter, Pittsburgh. —p. 289.
Roentgen-Ray Diagnosis of Diseases of Liver and Gallbladder. G. W. Grier, Pittsburgh.—p. 293.
Significance of Bile Pigment. W. W. G. Maclachlan, Pittsburgh.—p. 297.
Dangers of Common Cold in New-Born. H. T. Price, Pittsburgh.—p. 301.
Pneumonia with Delayed Resolution in Infants and Children. H. T. Price, Pittsburgh.—p. 302.
Treatment of Acute Empyema. R. E. Davison, Pittsburgh.—p. 304.
Accidental Inhalation of Zinc Stearate Dusting Powders. R. H. Middleton, Pittsburgh.—p. 307.
Posttonsillectomic Pulmonary Abscess. C. Jackson, Philadelphia.—p. 309.
Anatomy and Etiology of Lateral Sinus Thrombosis. J. A. Babbitt, Philadelphia.—p. 315.
Pathology, Diagnosis and Differential Diagnosis of Lateral Sinus Thrombosis. J. C. Keeler, Philadelphia.—p. 318.
Treatment of Lateral Sinus Thrombosis. C. C. Eves, Philadelphia.— p. 321.
Stomatologic-Medical and Dental-Autonomous Plans of Education for Dentists. A. J. Asgis, New York.—p. 325.

California and Western Medicine, San Francisco

24: 145-288 (Feb.) 1926

*Prophylaxis and Treatment of Wound Infections by Modern Methods. K. F. Meyer, San Francisco.—p. 177.
*Changes in Blood Serum Calcium Following Administration of Parathyroid Extract. J. W. Sherill and E. F. F. Copp, La Jolla, Calif. —p. 183.
Fifty Cases of Diabetes Treated with Insulin. B. E. Grant, Los Angeles. —p. 188.

Chronic Ulcerative Colitis. M. S. Wolf, San Francisco.—p. 191.
Laminectomy and Removal of Spinal Cord Tumors under Local Anesthesia. E. B. Towne, San Francisco.—p. 194.
Tuberculous Cecal Tumor. C. A. Johnson, Los Angeles.—p. 198.
Questionable Operations and Technic. F. A. Rhodes, Los Angeles.—p. 200.
Nasal (Sphenopalatine-Meckel's) Ganglion Neuroses. L. K. Gundrum, Los Angeles.—p. 204.
Rôle of Cesarean Section in Treatment of Eclampsia. J. C. Irwin, Los Angeles.—p. 208.
Industrial Hernia Versus Seminal Vesiculitis and Vasitis. M. B. Wesson, San Francisco.—p. 212.

Tetanus and Gas Gangrene.—The prophylaxis of tetanus and gas gangrene is discussed by Meyer, 148 cases occurring in California between June, 1922, and March, 1925, forming the basis of his study. Nineteen of these were cases of tetanus neonatorum, suggesting that a primitive type of delivery is still practiced in certain strata of the population. Vaccination was followed by two cases of tetanus; eight were postoperative cases of tetanus. As very few instances of catgut infection have been proved, Meyer says it is more reasonable to suspect the intestinal canal of the patient himself as the source of the postoperative tetanus. Since it is now definitely established that tetanus spores or any other gas gangrene producing anaerobe ingested on raw vegetables may multiply in the intestinal tract and remain there in large numbers, the surgeon should fully appreciate this insidious source of wound infection before he suspects his surgical instruments, sutures and dressings. It is not unlikely that many of the postoperative anaerobic infections are from within, e. g., the intestinal canal of the patient and not from without. These data, as a whole, emphasize anew the well known fact that relatively trivial injuries may lead to tetanus. The most deplorable condition which was recognized from the analysis of the data is the fact that only three, possibly four, people who received puncture wounds, lacerations, contusions, or compound fractures of the type considered most liable to tetanus infection had the benefit of a prophylactic injection of antitoxin. The majority of the patients involved in this series never consulted a physician, and either ignored the injuries or treated them by unknown remedies. On the other hand, at least five physicians failed to give antitoxin, although the character of the injury (compound fracture, deep nail puncture) should have aroused suspicion of the possible consequences. Furthermore, the prophylactic treatment was not conducted in accordance with established practice, and, Meyer says, one is forced to conclude that those responsible were not familiar with the basic principles of the prevention of tetanus.

Blood Changes Effected by Parathyroid Extract.—Sherill and Copp report the changes in blood serum calcium, coagulation time and red cell volume in various types of clinical conditions, such as arthritis, paralysis agitans, hemophilia, mental deficiency with convulsions, epilepsy, gastric ulcer, neurosis and purpura hemorrhagica resulting from the administration of parathyroid extract. The serum calcium was increased in amount, and the coagulation time reduced.

Canadian Medical Association Journal, Montreal

16: 121-212 (Feb.) 1926

Epigastric Distress: Functional Causes and Treatment. A. McPhedran, Toronto.—p. 121.
Carcinoma of Large Bowel. F. A. C. Scrimger, Montreal.—p. 125.
Cases of Pyrexia without Physical Signs. T. Horder.—p. 130.
Atomic Processes of Disease. E. McDonald, Philadelphia.—p. 136.
Scleroderma: Treatment by Radium. H. Mackay, Manitoba.—p. 142.
Primary Repair of Injuries to Parotid Duct. F. J. Tees, Montreal.—p. 145.
Significance of Hematuria. J. C. McClelland, Toronto.—p. 147.
*"Gassy Indigestion": Significance as Symptom of Gallbladder Disease. A. R. Campbell, Yarmouth, N. S.—p. 151.
Essential Thrombocytopenic Purpura Hemorrhagica: Splenectomy. C. G. Geggie, Edmonton.—p. 155.
Pyemia After Scarlet Fever. H. B. Cushing, Montreal.—p. 157.
*Effect of Two Different Preparations of Iodine on Preoperative Basal Metabolic Rate in Exophthalmic Goiter. R. R. Fitzgerald, Montreal.—p. 159.
Clinical Study of Colloidal Benzoin Reaction. W. R. Jaffey, Hamilton.—p. 161.
Profuse Hemoptysis Arising from Small Area of Bronchiectasis Followed by Brain Abscess. A. T. Henderson, Montreal.—p. 165.
Case of Acute Lymphatic Leukemia: Death in Five Weeks. L. J. Breslin, Toronto.—p. 167.
Abscess of Lung: Case in Infant 24 Days of Age. R. R. Struthers, Montreal.—p. 168.
Abortion of One Twin: Delivery of Second at Term. M. G. Burris, Halifax.—p. 170.
Fracture of Semilunar Bone Due to Indirect Violence. J. H. Palmer, Rossland.—p. 170.
Mechanism of Pigment Formation in Skin. J. F. Burgess.—p. 171.
Recent Advances in Hematology. I. Origin of Red Blood Cell in Adult Marrow. E. S. Mills.—p. 174.

Gassy Indigestion.—The common complaints of "gassy indigestion" and "spells with the heart" in middle aged and elderly women, according to Campbell, are generally due to chronic inflammation of the gallbladder and appendix. Gallstones are not always present and are not essential to the development of the complex. Removing the gallbladder does not in these cases interfere with the function of the biliary system. The best treatment is to remove the gallbladder and appendix at the same time. The mortality of this procedure is low, and the results wonderfully satisfactory in that the patient can afterward eat ordinary food and be comfortable.

Lowering Basal Metabolic Rate by Iodine.—Fitzgerald compares the effectiveness of compound solution of potassium iodide in lowering the preoperative basal metabolic rate in cases of exophthalmic goiter with that of resublimed iodine given in solution in dilute hydriodic acid. Lowering of the basal metabolic rate was effected in nearly all cases, irrespective of the kind of iodine used. The two methods of treatment produced practically the same diminution in the basal metabolic rate and in about the same length of time. It was found necessary to give four times as much resublimed iodine as compound solution of potassium iodide to produce the same clinical results.

Florida Medical Association Journal, St. Augustine and Jacksonville

12: 205-222 (Feb.) 1926

Comparison of Kolmer Quantitative Test with Routine Wassermann. H. R. Mills, Tampa.—p. 205.
Periodontia. C. J. Masters, Jacksonville.—p. 207.
Five Thousand Nonsurgical Drainages of Biliary Tract. G. M. Niles, Atlanta, Ga.—p. 209.
Public Health Laboratory Examinations and Their Limitations. J. R. Bean, Jacksonville.—p. 211.
Smallpox. B. L. Arms, Jacksonville.—p. 215.

Johns Hopkins Hospital Bulletin, Baltimore

38: 83-162 (Feb.) 1926

*Pulmonary Tuberculosis and Pregnancy. E. W. Bridgman and V. Norwood, Baltimore.—p. 83.
Effects of Liver Extracts in Hypertension Produced by Guanidine Compounds. R. H. Major, O. O. Stoland and C. R. Buikstra, Kansas City, Kan.—p. 112.
Experimental Production of Annular Ligaments, as Example of Influence of Function on Differentiation of Connective Tissue. O. V. Batson and M. M. Zinninger, Cincinnati.—p. 124.
*Experimental Production of Premature Separation of Placenta. J. Hofbauer and E. M. K. Geiling, Baltimore.—p. 143.
Bacillus Bronchisepticus Infection in Child with Symptoms of Pertussis. J. H. Brown, Baltimore.—p. 147.

Pulmonary Tuberculosis and Pregnancy.—Among the first 14,000 histories of the indoor obstetric service of Johns Hopkins Hospital reviewed by Bridgman and Norwood, 134 patients were grouped as having pulmonary tuberculosis in one or more of its various forms. In fifty cases the diagnosis of tuberculosis was questionable. In seventeen cases the history and signs pointed conclusively to the diagnosis of pulmonary tuberculosis in an inactive stage at the time of delivery. There were seventeen cases of clinically definite pulmonary tuberculosis, inactive at the time of delivery and thirty-one patients who had active tuberculosis during pregnancy and at the time of delivery. There were twelve cases of active tuberculosis in which a therapeutic abortion was done, and seven cases of inactive tuberculosis with therapeutic abortion. In nineteen cases pregnancy was associated with tuberculosis and some other disease, syphilis in ten instances. As to what shall be done in the case of a pregnant woman in whom tuberculosis is found, Bridgman and Norwood are emphatic in stating their position of treating the tuberculosis to the uttermost, disregarding the pregnancy, and prescribing rest and more rest, preferably in a sanatorium, and under those whose life's business is the treatment of tuberculosis. Artificial termination of pregnancy is not indicated, and in this series has led to a somewhat worse outcome. On the other hand, a later sterilization is an entirely different matter

—to be done at some period after the patient has been through her pregnancy, and the tuberculosis has become quiescent. It is obviously not right to allow a tuberculous mother to be subjected to repeated pregnancies with repeated recrudescences of an old lesion. The use of tubal sterilization seems, in general, to be the most satisfactory procedure, but even such operative measures should be adopted only after a consultation between obstetrician and practitioner, and then only if they agree that in the individual patient future pregnancies are contraindicated.

Experimental Premature Separation of Placenta.—An experimental premature separation of the placenta was effected by Hofbauer and Geiling by injecting histamine intravenously or intracardially, into pregnant guinea-pigs and cats. A noteworthy phenomenon was observed in the uterine mucosa, namely, a conspicuous hemorrhage extending along the course of the blood vessels, while the uterine glands adjacent to the placenta were filled with fresh blood, which in places lifted up the epithelial covering of the uterine mucosa. Within the uterine wall the occurrence of a marked edema, spreading apart the muscle bundles, was a striking feature. In the guinea-pig, as well as in the cat, the occurrence of thrombi in the veins of the decidua and of other organs, especially the liver, could be demonstrated. In some experiments the abdominal cavity contained a variable amount of free fluid, which was highly conspicuous in a few instances. The changes encountered in the livers of the cats aroused special interest, peripheral necrosis and stagnation of the bile being the most prominent features. The results obtained are in harmony with the recent tendency pointing to the association of the placenta with a toxemic process, and indicate that a sudden access of histamine to the circulation of the pregnant woman might well account for the sudden appearance of the accident in question with its traits of alarming symptoms.

Journal of Comparative Neurology, Philadelphia

40: 1-251 (Feb.) 1926

Studies on Muscle Tonus. I. Contractile and Plastic Factors in Decerebrate Rigidity. S. W. Ranson, St. Louis.—p. 1.
Id. II. Comparison of Synapse-Blocking Action of Nicotine and Chloral Hydrate. S. W. Ranson, St. Louis.—p. 15.
Id. III. Sublaminal Injection of Chloral Hydrate in Decerebrated Cats. S. W. Ranson, St. Louis.—p. 23.
Regeneration of Gustatory Apparatus in Rat. B. Whiteside, St. Louis.—p. 33.
Correlated Anatomic and Physiologic Studies of Growth of Nervous System of Amphibia. G. E. Coghill, Lawrence, Kan.—p. 47.
Thalmic and Tectal Nuclei and Fiber Paths in Brain of American Alligator. G. C. Huber and E. C. Crosby, Ann Arbor, Mich.—p. 97.
Nonbifurcating Nerve Fibers of Trigeminal Nerve. W. F. Windle, Chicago.—p. 229.
Relations Between Central and Peripheral Coordination. P. Weiss, Vienna.—p. 241.

Journal of Infectious Diseases, Chicago

38: 101-192 (Feb.) 1926

Viability and Toxicogenic Power of Small Numbers of Spores of Clostridium Botulinum Subjected to Different Temperatures. W. A. Starin, Chicago.—p. 101.
*Relationship of Incubation Temperature to Viability, Rate of Growth and Toxin Production of Clostridium Botulinum in Different Vegetables. W. A. Starin, Chicago.—p. 106.
*Pulmonary Infections by Friedländer's Bacillus. W. P. Belk, Philadelphia.—p. 115.
*Germicidal Properties of Soap. J. E. Walker, Hot Springs, Ark.—p. 127.
Biologic Significance of Soluble Specific Substances of Pneumococci. L. D. Felton and G. H. Bailey, Boston.—p. 131.
Specific Precipitates Obtained from Antipneumococcus Serum and Antibody Solution by Soluble Specific Substances of Pneumococci. L. D. Felton and G. H. Bailey, Boston.—p. 145.
*Influence of Some Anaerobic Species on Toxin of Clostridium Botulinum: Special Reference to Clostridium Sporogenes. M. Dack, Chicago.—p. 165.
*Behavior of Botulinum Toxin in Alimentary Tract of Rats and Guinea-Pigs. G. M. Dack, Chicago.—p. 174.
Studies on Respiratory Diseases. XXVII. Electrophoretic Potential, Acid and Serum Agglutination of Pneumococci. I. S. Falk and M. A. Jacobson, Chicago.—p. 182.
Id. XXVIII. Electrophoretic Potentials, Dissolution and Serum Agglutination of Pneumococci in Presence of Sodium Oleate. I. S. Falk and M. A. Jacobson, Chicago.—p. 188.

Effect of Temperature on Clostridium Botulinum.—As to the effect of temperature on *Clostridium botulinum*, Starin says that death of the organism does not occur at any temperature used, even after three months' incubation. Even in those mediums in which no evidence of growth or toxin production could be detected, transplants to a suitable medium, such as beef heart, resulted in abundant growth of the organism with normal toxin production. Disintegration of the medium parallels the production of toxin, although in some instances lethal doses of toxin may be present with practically no noticeable changes in the gross appearance or in the odor. The four vegetables used ranked as follows in the rate of toxin production, and in the quantity of toxin produced: corn, peas, string beans, spinach. The high initial acidity of the beans and spinach may be the responsible factor for the slight growth and toxin production in these mediums.

Pneumonia Caused by Bacillus Mucosus.—Eighteen cases of infection of the lung by *B. mucosus* were studied by Belk, and a provisional report is made of a chronic pulmonary lesion caused by this organism. Six cases of lobar pneumonia due to *B. mucosus* are reported in detail, with references to thirty-eight cases recorded in the literature.

Germicidal Properties of Soap.—Walker summarizes his study as follows: the meningococcus is killed in two and a half minutes by N/80 to N/640 solutions (0.4 per cent to 0.04 per cent) of the soaps of the fatty acids ordinarily present in soap bases; 1 per cent phenol is required to kill under the same condition. The gonococcus is killed in two minutes by N/640 to N/5120 solutions (0.04 per cent to 0.006 per cent) of the same soaps; 0.5 per cent phenol killed under the same condition. Sodium resinate also possesses marked germicidal activity toward these two organisms. The meningococcus, on being tested with four commercial soaps, showed approximately the same degree of susceptibility as would have been anticipated from the action of the chemically pure soaps. The susceptibility of meningococci and gonococci is such that they (along with streptococci, pneumococci and diphtheria bacilli) will be killed readily by any ordinary soap used with a reasonable degree of care. The dysentery bacilli and paratyphoid bacilli react to the different soaps in the same manner as previously shown for typhoid and colon bacilli; that is, they are killed by moderate concentrations of the soaps of the saturated acids, but are completely resistant to the soaps of the unsaturated acids at ordinary temperatures. The most readily available soap to be used against the typhoid bacilli, paratyphoid bacilli and dysentery bacilli is salt water soap prepared exclusively from coconut oil.

Influence of Anaerobes on Botulinum Toxin.—Dack found that the filtered toxin of *Clostridium botulinum* added to beef heart medium is gradually destroyed by the growth of *Clostridium sporogenes* in it. The power to destroy botulinum toxin is also possessed by several other anaerobic species with proteolytic and nonproteolytic properties. The destruction of the toxin is not due to a change in hydrogen ion concentration.

Behavior of Botulinum Toxin in Alimentary Tract.—Botulinum toxin when mixed with stomach tissue and abdominal wall tissue from guinea-pigs and mice in vitro and incubated at 35 C. for one hour, Dack says, was not reduced in potency, except in two cases in which mouse stomachs were used. The reduction, however, was slight in these cases. Botulinum toxin was not completely destroyed in the stomachs and small intestines of rats and guinea-pigs receiving injections of the toxin directly into the stomach. Its presence was definitely demonstrated after twelve hours in guinea-pigs and after three hours in rats. In two cases out of seven toxin was demonstrated in the blood of guinea-pigs fed with botulinum toxin. No toxin was found in the blood of rats fed with large doses of botulinum toxin. Toxin was found in the blood of rats and guinea-pigs three hours after intravenous and mesenteric injections of the toxin.

Journal of Laboratory and Clinical Medicine, St. Louis

11: 405-502 (Feb.) 1926

*Some Relations Between Concentration of Blood Corpuscles in Venous and Capillary Blood and Blood Pressure of Diabetic Patients. H. F. Root and R. R. White, Boston.—p. 405.
*Separation of Internal Secretion of Parathyroid Glands. L. Berman, New York.—p. 412.

Anticomplementary Reaction of Blood Serum or of Spinal Fluid. A. H. Sanford, Rochester, Minn.—p. 413.
*Standardized Wassermann Report. A. J. Casselman, Camden, N. J. —p. 421.
Present Status of Kolmer's Complement-Fixation Test for Syphilis. R. A. Kilduffe, Atlantic City, N. J.—p. 425.
*Comparison of Results with Kolmer-Wassermann Methods and Kahn Precipitation Test. R. G. Owen and H. E. Cope, Detroit.—p. 432.
*Kahn Precipitation Test as Compared with Kolmer Complement-Fixation Test. A. S. Giordano, South Bend, Ind.—p. 435.
*Clinical Study of Kahn Precipitation Test and Kolmer Complement-Fixation Test. R. L. Kelly, Philadelphia.—p. 437.
New Modification of Meinicke Test. A. P. Saunders, Chicago.—p. 445.
*Pharmacology of Benzyl Alcohol and Its Esters. VI. Effect of Sodium Succinate "Benzycin" and Sodium Dibenzyl Phosphate "Benzyphos" on Blood Pressure in Arterial Hypertension. C. M. Gruber, St. Louis. —p. 451.
*Intestinal Obstruction and Pernicious Anemia: Case. R. L. Haden, Kansas City, Mo.—p. 454.
Use of Raw and Inactivated Serums in Flocculation Test for Syphilis. C. B. McGlumphy and W. W. Brandes, Chicago.—p. 459.
Method for Measuring Surface Tension Changes of Pure and Biologic Fluids. F. de Eds, San Francisco.—p. 464.
Studies in Local Anesthesia. IV. Pharmacology of Some Para-Amino-Benzoate Compounds. W. R. Meeker, Chicago.—p. 468.
Local Tissue Reactions. W. R. Meeker, Chicago.—p. 474.
Studies in Local Anesthesia. V. Toxicity of Para-Amino-Benzoate Compounds. H. McGuigan and G. A. Brough, Chicago.—p. 479.
Phenolic Coefficient. M. B. Burns and N. Bullock, Chicago.—p. 482.
Filtering Cylinder and Culture Tube for Bacteriologic Work. E. Ablahadian, Glendale, Calif.—p. 483.

Concentration of Blood Corpuscles in Diabetes.—The relative concentration of corpuscles in capillary and venous blood of twenty-seven diabetic patients in the morning and evening is compared by Root and White. Variations in arterial tension between these periods do not correlate constantly with any change in the corpuscle concentration. In certain patients, with high diastolic blood pressure, the capillary red cell count was higher than the venous red cell count at night but lower in the morning. This reversed relation suggests capillary stasis at the end of the day and was more marked in patients with obvious vascular disease. Increases in venous pressure produce the contrary effect; namely, high venous count and low capillary count.

Internal Secretion of Parathyroids.—Aqueous acidic solutions of a calcium mobilizing substance of the parathyroids of oxen were used by Berman to determine their effects on parathyroidectomized dogs, cats and white rats. The results show that protein-lipin-free solutions made by extraction of parathyroid glands with alcoholic solutions of acid (which were first used) or with aqueous solutions of acid (which were used immediately after the extractive efficacy of alcoholic solutions of acid had been established) will prevent or relieve the known cardinal effects following removal of the parathyroids, namely, the retention of phosphate, the decrease of blood calcium, the increase in electrical irritability of the nerves, the muscular hyperirritability and the various other symptoms. These results established the presence in the extracts of an internal secretion of the parathyroids since all the other criteria of substitution therapy are satisfied.

Standardized Wassermann Report.—Casselman aims to induce laboratory workers to state the results of their Wassermann tests in simpler language which will be better appreciated by clinicians.

Comparison of Kolmer-Wassermann and Kahn Tests.—Examining 1,600 serums with both these tests, Owen and Cope obtained a practical check in 93.8 per cent of the cases. The divergence between the two tests lies almost wholly among the treated patients.

Comparison of Kolmer and Kahn Tests.—Giordano asserts that the two tests run parallel in about 96 per cent of the serums. Both tests occasionally render a false negative which is usually picked up by one or the other when the two tests are run parallel.

Comparison of Kahn and Kolmer Tests.—In tests done by Kelly in 110 cases, a concordance of results was found in 105, or 95.45 per cent. There is no convincing evidence that a positive reaction occurred with the Kahn or Kolmer test, which was inconsistent with clinical or other serologic findings.

Pharmacology of Benzyl Alcohol and Its Esters.—Observations made by Gruber on animals showed that sodium benzyl succinate caused a rise in blood pressure in 67 per cent of the injections and sodium dibenzyl phosphate in 35 per cent of the cases; that the heart is slowed in many cases, in others markedly accelerated, and that sodium dibenzyl phosphate causes a precipitate in the presence of calcium salts. Hence, it would seem inadvisable to use these drugs in arterial hypertension. Intravenous administration of the latter drug, Gruber says, would certainly not be wise.

Intestinal Obstruction and Pernicious Anemia.—A case of clinically typical pernicious anemia occurring with a malignant obstruction of the duodenum and colon is reported by Haden. The findings in this case are said to be further evidence of the intestinal origin of pernicious anemia.

Laryngoscope, St. Louis

36: 79-156 (Feb.) 1926

Problem of Tracheobronchoscopy and Esophagoscopy. T. Matsui, Mukden, Manchuria.—p. 79.
Lateral Sinus Thrombosis: Cases. J. W. White, Norfolk, Va.—p. 96.
Satisfactory Mastoid Bandage. L. Richards, Boston.—p. 117.
Puncture of Maxillary Sinus. S. L. Ruskin, New York.—p. 119.
Hyperplastic Maxillary Sinusitis. W. Mithoefer, Cincinnati.—p. 137.
Adenoidoscope. J. B. H. Waring, Blanchester, Ohio.—p. 147.

Medical Journal and Record, New York

123: 282-344 (March 3) 1926

*Study of Four Hundred and One Patients with Cardiovalvular Defects. D. Perla, New York.—p. 282.
European School Hygiene. E. A. Tracy, Boston.—p. 284.
Need of Psycho-Analytic Clinics and Institutes in America. L. P. Clark, New York.—p. 287.
Fallibility of Intradermal Tests with Grasses in Chronic Perennial Bronchial Asthma: Hypodermic Tests. I. S. Kahn and E. M. Grothaus, San Antonio, Texas.—p. 290.
Use of Sodium Iodide Intravenously in Infections and Allergies. J. W. Wiltsie, Binghampton, N. Y.—p. 296.
Inheritance and Medicolegal Application of Blood Group. J. A. Buchanan, Brooklyn.—p. 299.
Diagnosis and Treatment of Seasonal Hay-Fever. A. Brown, New York. —p. 301.
Value of Duodenal Tube to Surgeon in Postoperative Treatment of Certain Cases of Gastro-Enterostomy. W. Meyer, New York.—p. 304.
Treatment of Neurosyphilis with Tryparsamide. P. A. O'Leary and S. W. Becker, Rochester, Minn.—p. 305.
General Pathology of Syphilis in Primary Phase. J. Golay, Geneva, Switzerland.—p. 308.
Dactylitis Syphilitica. D. W. Montgomery and G. D. Culver, San Francisco.—p. 314.
Neurosyphilis: Diagnosis and Treatment by General Practitioner. H. V. Pike, Danville, Pa.—p. 316.
Pollen Filter. M. B. Cohen, Cleveland.—p. 322.
Rare Mishap in Litholapaxy. L. Neuwelt, New York.—p. 323.
Ancient and Modern Medical Heresies. J. Wright, Pleasantville.—p. 324.
David Hayes Agnew. J. B. Deaver, Philadelphia.—p. 327.

Analysis of Cardiovalvular Cases.—Sixteen, or 3.9 per cent, of the 401 cases analyzed by Perla were attributable to syphilitic infection; 199, or 49.8 per cent, to rheumatic infections, and in 186 cases, or 46.3 per cent, the exact etiologic factors could not be determined. The nature of the lesion was: pure aortic insufficiency, 3.7 per cent; combined mitral and aortic disease, 24.4 per cent; mitral disease, 71.9 per cent; patients with aortic insufficiency alone or combined with other lesions, 113. Auricular fibrillation occurred in 112 cases. Of these, 78 per cent were in the rheumatic group, 20 per cent in the undetermined group and 1.5 per cent in the syphilitic group. Fifty-seven per cent of all cases of auricular fibrillation occurred in mitral stenosis. A palpable spleen was found in 12 per cent of all cases. The duration of life from the time of onset is longest if the disease is acquired under 20. A defect of the valves is not disease of the heart.

Minnesota Medicine, St. Paul

9: 56-104 (Feb.) 1926

Character and Relationship of Criminality, Delinquency and Feeblemindedness. R. M. Phelps, St. Peter.—p. 55.
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Therapeutic Value of Roentgen Rays. A. U. Desjardins, Rochester. —p. 82.
Calcium Lactate as Preventive in Migraine. C. E. Riggs, St. Paul. —p. 87.

New Jersey State Medical Society Journal, Orange

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Taxation: Effects on Present Day Estates. L. G. McDonall, Newark.—p. 61.
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Treatment of Angioneurotic Edema. W. C. Menninger, Topeka, Kan.—p. 68.
Isolation Hospital. C. V. Craster, Newark.—p. 71.
Psychologic Examining as Applied to Feebleminded. D. M. Bassett, Vineland.—p. 74.

New York State Journal of Medicine, New York

26: 127-172 (Feb. 15) 1926

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Elective Version and Extraction. P. T. Harper, Albany.—p. 134.
Pyloric Obstruction in Infancy. T. Wright, Buffalo.—p. 143.
Some Inconsistencies in Public Health Law and Difficulties in Administering It. M. Nicoll, Jr., Albany.—p. 148.

Oklahoma State Medical Association Journal, Muskogee

19: 30-57 (Feb.) 1926

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Mesenteric Vascular Occlusion. A. Cowles, Ardmore.—p. 33.
Focal Infection. L. C. Kuyrkendall, McAlester.—p. 35.
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Public Health Journal, Toronto

27: 51-100 (Feb.) 1926

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Immunization Against Diphtheria with Diphtheria Toxoid (Anatoxine Ramon). R. George.—p. 61.
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Mental Disease in Relation to Crime. C. B. Farrar.—p. 83.

South Carolina Medical Association Journal, Greenville

22: 25-51 (Feb.) 1926

Disease and Foreign Bodies in Air and Food Passages. E. W. Carpenter, Greenville.—p. 27.
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Texas State Journal of Medicine, Fort Worth

21: 575-632 (Feb.) 1926

Acidosis and Insulin. F. D. Garrett, El Paso.—p. 590.
Present Status of Insulin. C. T. Stone, Galveston.—p. 591.
Peptic Ulcer. K. H. Beall, Fort Worth.—p. 595.
Need for More Intelligent Cooperation Between Internist and Surgeon in Treatment of Chronic Peptic Ulcer. W. B. Russ, San Antonio.—p. 597.
Roentgenologic Diagnosis of Peptic Ulcer. R. D. Carman, Rochester, Minn.—p. 599.
Medical Practice Act of Texas, Just and Necessary Law. T. J. Crowe, Dallas.—p. 606.

Southwestern Medicine, Phoenix, Ariz.

10: 45-92 (Feb.) 1926

Chest Surgery: Thoracoplasty in Tuberculosis. C. E. Yount, Prescott, Ariz.—p. 45.
Atypical Mastoiditis: Three Cases. J. J. McLoone, Phoenix.—p. 50.
Tularemia. M. B. Culpepper, Carlsbad.—p. 55.
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Surgical Treatment of Chronic Headache and Pain in Head. E. R. Carpenter, Dallas.—p. 61.
Anesthesia and Analgesia in Obstetrics. H. A. Reese, Yuma, Ariz.—p. 64.
Use of English Language in Medicine. E. C. Prentiss, El Paso.—p. 66.
Thoracoplasty. F. P. Miller, El Paso.—p. 68.
Large Nasal Polypus. B. E. Galloway, Aguascalientes, Mexico.—p. 70.

Virginia Medical Monthly, Richmond

52: 687-754 (Feb.) 1926

Individual Preventive Medicine. W. T. Vaughan, Richmond.—p. 687.
Helpful Point in Technic of Appendectomy. C. R. Robins, Richmond.—p. 691.
Weight of Some Vital Organs—Their Development, Variability and Relation to Disease. R. B. Bean, University.—p. 692.
Complications of Pulmonary Tuberculosis. H. G. Carter, Burkeville.—p. 697.
Some Aspects of Mouth Troubles. J. S. Davies, University.—p. 699.
Carbohydrates in Nondiabetic Acidosis. A. H. Hoge, Bluefield, W. Va.—p. 702.
Megalo-Ureter. J. F. Geisinger, Richmond.—p. 707.
Medical Treatment of Some Pelvic Diseases Most Commonly Met. R. H. Woolling, Pulaski.—p. 711.
Etiology and Diagnosis of Acute Pelvic Diseases. W. C. Caudill, Pearisburg.—p. 713.
Clinical Pathology as Applied to Pelvic Diseases. L. D. Keyser, Roanoke.—p. 715.
Use of Roentgen Ray and Ultraviolet Light in Treatment of Nonmalignant Conditions of Skin. T. W. Murrell, Richmond.—p. 720.
Business Side of Practice of Medicine. A. McLeor, Glen Allen.—p. 723.
Convulsions Following Thyroidectomy: Case. W. R. Payne, Newport News.—p. 725.
Health Status of Preschool Children of Virginia. E. Gardner, Richmond.—p. 727.
Corneal Ulcer: Treatment. R. S. Lamb, Washington, D. C.—p. 728.
Peritonsillar Abscess. J. B. H. Waring, Blanchester, Ohio.—p. 730.
Gynecologic Surgery—Radical or Conservative? G. F. Douglas, Birmingham, Ala.—p. 731.
Achievements of American Medical Association. W. C. Phillips, New York.—p. 734.

West Virginia Medical Journal, Charleston

22: 57-12 (Feb.) 1926

Dietary Treatment of Nondiabetic Acidosis. A. H. Hoge, Bluefield.—p. 57.
Significance of Term Biliousness. D. VanderHoof, Richmond, Va.—p. 66.
Some Common Disorders of Digestive Tract. J. W. Preston, Roanoke, Va.—p. 70.
Acute Abdomen: Diagnosis. H. B. Luttrell and P. R. Fox, Bramwell.—p. 75.
Roentgen-Ray Study of Bone Lesions: Tumors. M. Kahn, Baltimore.—p. 79.
Sarcoma of Choroid. R. A. Tomassene, Wheeling.—p. 82.
Fractures of Upper Third of Humerus. E. B. Henson, Charleston.—p. 83.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

Archives of Disease in Childhood, London

1: 1-62 (Feb.) 1926

*Hepatic Cirrhosis in Children: Biliary Forms. F. J. Poynton and W. G. Wyllie.—p. 1.
*Epinephrine in Severe Rheumatic Heart Block. G. A. Sutherland.—p. 21.
Deformity of Pes Cavus. A. S. B. Bankart.—p. 26.
*Incidence of Rickets in London Hospital Outpatient Department. W. P. T. Atkinson, H. Mackay, W. L. Kinnear and H. F. Shaw.—p. 30.
Rickets in Infancy. H. Mackay.—p. 33.
*Rickets: Incidence in London. D. Patterson and R. Darby.—p. 36.
*Purpura Hemorrhagica. B. Williamson.—p. 39.
*Ketonuria and Urinary Acidity. K. H. Tallerman.—p. 50.
*Four Cases of Immunotransfusion. E. I. Lloyd and B. E. Schlesinger.—p. 54.
Measures in Infant Feeding. G. A. Harrison and H. Thursfield.—p. 58.

Liver Cirrhosis in Children.—Four cases are recorded by Poynton and Wyllie. One was that of a girl, aged 9, with intermittent jaundice, epistaxis and hematemesis, most likely a case of portal cirrhosis, associated with tuberculosis, possibly mesenteric, and without congenital predisposition. Two other patients, brother and sister, had enlargement of the abdomen from birth and very little jaundice, probably a form of hypertrophic cirrhosis, similar to the sclérose sans ictère described by Hayem. The authors think that this cirrhosis is of portal rather than of biliary origin. These two cases are specially interesting owing to the rarity of a familial occurrence of the portal type as compared with the biliary form of hepatic cirrhosis. In the fourth case, the size and hardness of the liver, and the duration of the jaundice (eight weeks) were unusual. Also, outbreak of fever, with the rapid and great enlargement of the spleen, as a late event, are unusual features in the catarrhal jaundice of childhood. The remarkable subsidence of the liver and spleen before the child left the hospital favored some degree of biliary obstruction rather than cirrhotic changes in the liver.

Epinephrine in Rheumatic Heart Block.—Two points are stressed by Sutherland: the value of epinephrine in conditions of heart block when the symptoms are so severe that death seems imminent, and the early appearance of a definite and grave cardiac lesion as the result of rheumatic infection, and before any other evidence could be detected as to what the nature of the illness was.

Incidence of Rickets in London Hospital.—One hundred and sixty-nine children were examined radiographically and clinically for evidence of rickets at the Queen's Hospital for Children in April, 1925. Two rachitic children were excluded, since they were sent to the hospital for that disease. Of the 167 remaining, thirteen had radiographic evidence of rickets (i. e., 8 per cent), but if only infants between the ages of 4 and 13 months are considered, seventy-two are left, eleven of whom had rickets, an incidence of 15 per cent.

Incidence of Rickets in London.—In a series of 339 cases occurring between birth and 2 years, there were four cases of active roentgen-ray rickets, 1.2 per cent of the total. One hundred and ten cases showed clinical rickets which was proved to be healed, showing that 32 per cent of the children had had rickets. Ninety-two per cent of the children were having some cod liver oil preparation. Evidence is produced which suggests that cod liver oil protected some children from rickets, and healed rickets in others. The diet of the normal children showed that 0.3 per cent were fed on dried milk, 0.4 per cent on cow's milk, 0.1 per cent on sweetened condensed milk and 0.2 per cent on breast milk. Ninety-six per cent of these, however, were having cod liver oil, and the 4 per cent remaining were breast fed.

Results of Splenectomy in Purpura Hemorrhagica.—Of fifty-eight cases of purpura hemorrhagica reported by Williamson in which splenectomy was done, fifty patients are well, two are improved and six are dead. Williamson says that operation should be reserved for chronic cases which fall into two groups: (1) those in which chronicity with severity so interferes with the normal life of the subject that a state of chronic invalidism is established; (2) those in which the severity of the hemorrhages and the frequency of its occurrence constitute a real danger to the life of the patient.

Ketonuria and Urinary Acidity.—The average urinary p_H in forty-two cases exhibiting ketosis was 5.86, while that of the controls was 6.37. In none of the cases of ketosis following tonsillectomy was a urinary acidity encountered which approached a point indicative of acidosis. The p_H lay within normal limits in every case. A simple method of testing the urinary acidity is described. To 1 inch of urine in a test tube is added 5 drops of bromcresol purple (0.04 per cent aqueous solution). If the color obtained is purplish, no further tests need be carried out. The p_H is on the alkaline side of 6.4. If a yellow color is obtained, to a like quantity of urine in another tube is added 5 drops of methyl red (0.02 per cent in 60 per cent alcoholic solution). If the color then obtained is yellowish orange and not a deep pink, the urinary acidity lies to the alkaline side of p_H 5.4, and no danger from an acidosis need be feared.

Immunotransfusion for Septicemia.—Four cases of proved septicemia treated by immunotransfusion with one recovery and three deaths are described by Lloyd and Schlesinger. Success resulted in a pneumococcal septicemia consequent on empyema, and seems attributable to the transfusion.

Biochemical Journal, London

20: 1-216 (No. 1) 1926

Cyanate in Blood. E. Gottlieb.—p. 1.
Modification of Calcium Pectate Method for Estimation of Pectin. A. M. Emmett and M. H. Carré.—p. 6.
Hydrolysis of Cyanic Acid. W. R. Fearon and G. C. Dockeray.—p. 13.
*Effect of Chemical Preservation of Eggs on Stability of Their Vitamin Contents. E. Tso.—p. 17.
Nature of Action on Photographic Plate of Sawdust and Cholesterol Irradiated by Mercury Vapor Quartz Lamp. N. S. Lucas.—p. 23.
Use of Colloidal Ferric Hydroxide Sol for Adsorbing Vitamins B and D. R. Zajdel and C. Funk.—p. 27.
*Vitamin B of Lemon Rind. S. G. Willimott.—p. 31.
Micromethod for Estimation of Hydrogen Ion Concentration of Capillary Blood. C. J. Martin and E. H. Lepper.—p. 37.
Discrepancy Between Electrometric and Colorimetric (Phenol Red) Determinations of C_H According to Salt-Content of Solution E. H. Lepper and C. J. Martin.—p. 45.
Oxidation of Aceto-Acetic Acid and Ester by Hydrogen Peroxide; Biochemical Significance. P. W. Clutterbuck and H. S. Raper.—p. 59.
Tyrocinase-Tyrosine Reaction. IV. Identity of Tyrosinase from Different Sources. H. S. Raper and H. B. Speakman.—p. 69.
Pigments of Butterflies' Wings. I. Melanargia Galatea. D. L. Thomson.—p. 73.
*Nitrogen and Sulphur Metabolism. H. E. C. Wilson.—p. 76.
*Chemical Nature of Subcutaneous Fat in Normal and Sclerematous Infant. H. J. Channon and G. A. Harrison.—p. 84.
*Determination of Iron in Blood, Tissues and Urine. F. S. Fowweather.—p. 93.
*Excretion of Phosphate During Water Diuresis. R. E. Havard and G. A. Reay.—p. 99.
Buffer Mixture for Alkaline Range of Hydrogen Ion Concentration Determinations. W. R. G. Atkins and C. F. A. Pantin.—p. 102.
Anemia, Urobilinuria and Intestinal Hemorrhage in Rabbits in Consequence of Exclusive Nutrition with Cow's and Goat's Milk. E. Brouwer.—p. 105.
Chemical Study of Leaf Cell Cytoplasm. I. Soluble Proteins. A. C. Chibnall and C. E. Grover.—p. 108.
Sources of Error in Technic Employed for Biological Assay of Fat-Soluble Vitamins. H. Chick.—p. 119.
*Maintenance of Standardized Breed of Young Rats for Work on Fat-Soluble Vitamins: Endowment of Offspring. H. H. Smith and H. Chick.—p. 131.
*Antirachitic Value of Fresh Spinach. H. Chick and M. H. Roscoe.—p. 137.
*Antirachitic Value of Winter Spinach. M. A. Boas.—p. 153.
Dehydrogenations Produced by Resting Bacteria. IV. Theory of Mechanism of Oxidations and Reductions in Vivo. J. H. Quastel.—p. 166.
Interaction of Amino-Compounds and Carbohydrates. I. Action of Urea on Glucose, Fructose and Mannose. A. Hynd.—p. 195.
Id. II. Preparation of Glucose Ureide. A. Hynd.—p. 205.
Bacterial Decomposition of Textile Fibers. III. A. C. Thaysen, W. E. Bakes and H. J. Bunker.—p. 210.

Effect on Vitamins of Chemical Preservation of Eggs.—Chinese preserved eggs, or "pidan," offer an unusual opportunity for the study of some of the conditions under which the stability of vitamins may be affected. The preserved eggs are more or less chemically changed products of fresh ducks' eggs which are presumably rich in vitamin A, vitamin B, and the antirachitic food factor which exhibits certain vitamin-like properties. "Pidan" is made from raw ducks' eggs by applying a mixture of slaked lime, straw ash, soda, table salt and water. A study made by Tso of the stability of the vitamins in these preserved eggs has shown that the originally rich vitamin B content is practically completely destroyed, but that the potency of vitamin A and the antirachitic food factor is little or not at all affected.

Vitamin B of Lemon Rind.—From the experimental results obtained by Willimott, it is evident that vitamin B is present in appreciable amounts in the rind of the fresh lemon. This supply of B, though sufficient for reproduction, was inadequate for successful rearing.

Nitrogen and Sulphur Metabolism.—Further evidence is adduced by Wilson in favor of the view that in the storage of protein the sulphur is retained first.

Chemical Nature of Subcutaneous Fat of Infants.—The analytic constants of the subcutaneous fat of eight infants and one adult have been determined by Channon and Harrison. The iodine value is lowest at birth and increases to the adult value from the eighth to the twelfth month of life; there is a corresponding decrease of melting point with age. The saponification value is almost constant at 200. Similar analyses have been made in four cases of sclerema neonatorum in which the fat appears to have a higher melting point and a slightly lower iodine value than the corresponding values of the fat in infants of the same age. The raised melting point is believed to be due to the presence of an excess of glycerides of the higher fatty acids—probably of palmitic acid—which causes a slight decrease in the oleic acid content of the fat. Subcutaneous tissue in cases of sclerema contains an abnormal amount of cholesterol, calcium and phosphorus.

Determination of Iron in Blood, Tissues and Urine.—Methods are described by Fowweather for determining the amount of iron present in the blood, tissues and urine, using the colorimetric method dependent on the formation of ferric thiocyanate in the presence of acetone. It is shown that these methods are capable of a high degree of accuracy. They are simpler and less time-consuming than the methods at present in use.

Excretion of Phosphate During Water Diuresis.—Havard and Reay assert that the rate of phosphate excretion is independent of the water rate even when, owing to copious diuresis, the urinary phosphate is below the level of the plasma phosphate. It is shown that this is inconsistent with

the view that phosphate is a "no-threshold" substance as represented in Cushny's theory of kidney secretion. The bearing of this result on other theories of kidney secretion is briefly discussed.

Fat Soluble Vitamin Diet.—A description is given by Smith and Chick of the diet and general management found satisfactory in breeding rats for nutritional work on fat-soluble vitamins. The diet used, consisting of cereals, fresh vegetables and milk, is moderately rich in vitamin A but poorer in vitamin D, except in summer, when fresh pasture milk contains a much increased amount of this vitamin. The experiment of replacing fresh milk in the diet of the pregnant and lactating mothers by dried milk prepared from the winter milk supply has proved successful in lessening the degree of irregularity among the young.

Antirachitic Value of Fresh Spinach.—According to Chick and Roscoe, fresh leaves of spinach are a rich source of vitamin A, a small daily ration (0.1 Gm. and upward) encouraging growth and lessening or preventing xerophthalmia in young rats on diets devoid of fat-soluble vitamins. Spinach grown in the open in winter, spring or autumn possesses no antirachitic properties that can be demonstrated by the methods employed. Spinach leaves when irradiated with ultraviolet rays from a mercury vapor quartz lamp become powerfully antirachitic.

Antirachitic Value of Winter Spinach.—The fresh leaves of winter-grown spinach added to an experimental diet caused an even greater improvement in the well-being of rats and in the rate of growth than was caused by the addition of cod liver oil. The weight of the skeleton was not, however, proportionally increased. The conclusion is drawn by Boas that winter spinach contains an amount of vitamin D which is negligible compared with its content of vitamin A.

British Journal of Experimental Pathology, London

7: 1-46 (Feb.) 1926

*Systemic Factors in Genesis of Cancer. W. Cramer.—p. 1.
*Determination of Amount and Composition of Fat of Feces. I. "Wet" and "Dry" Methods. F. S. Fowweather.—p. 7.
*Id. II. Composition of Fat of Feces of Normal Adult. F. S. Fowweather.—p. 15.
Insulin and Glucose Utilization: Effects of Anesthetics and Pituitary Extract. C. G. Lambie.—p. 22.
*Growth-Promoting Factor in Tumor Tissue. H. Chambers and G. M. Scott.—p. 33.
Preparation of "Purified" Toxin from Blood-Bouillon Cultures of Streptococcus Scarlatinae. T. J. Mackie and D. G. S. McLaughlin.—p. 41.
*Effect of Methylene-Blue Injections on Body Temperature of Rat. A. D. Stammers.—p. 44.

Systemic Factors in Genesis of Cancer.—The results presented by Cramer indicate that there are systemic factors influencing the genesis of cancer, and experimentally, at least, the resistance against the genesis of cancer can be diminished. Incidentally, it was found that autotransplantation of minced spleen tissue into a splenectomized mouse leads to regeneration of the spleen.

Estimation of Fat in Feces.—Fowweather asserts that any method of analysis of dried specimens of feces will show a fat composition which varies to a greater or less degree from that of the specimen as passed. Not only are the dry methods inaccurate in a purely scientific sense, but the inaccuracies are such as to lead to erroneous deductions with regard to the clinical significance of the figures obtained. The wet method affords a more efficient means of extraction.

Fat in Feces.—The feces in eighty surgical cases were analyzed by Fowweather by the wet method. The average amount of total fat was decidedly less than given by Cammidge's figures. There was a preponderance of free over combined fatty acids. In 80 per cent of the cases the percentage of neutral fat was below 50.

Growth Promoting Factor in Tumor Tissue.—Experiments made by Chambers and Scott showed that a substance is produced from tumor cells during autolysis which in vivo causes an appreciable increase in the rate of tumor growth. The substance is formed under conditions which preclude its being a living agent. It is a fairly stable chemical body which is apparently derived from the nuclear structures.

Effect of Methylene Blue on Body Temperature.—The figures obtained by Stammers indicate that no abnormal fluctuations in temperature occur as a result of the injection of methylene blue in rats.

Indian Medical Record, Calcutta

45: 33-64 (Feb.) 1926

Present Position of Medical Profession and Medical Research in India. R. Row.—p. 33.
Experience in Treatment of Kala-Azar with Urea Stibamine. A. C. Chaterjee.—p. 39.
Nonspecific Protein Therapy. A. Roy.—p. 44.

International Journal of Psycho-Analysis, London

7: 1-153 (Jan.) 1926

Psychologic Relations Between Sexuality and Alcoholism. K. Abraham.—p. 1.
Neurotic Character. E. Glover.—p. 11.
Infant Analysis. M. Klein.—p. 31
Will to Recovery. H. Nunburg.—p. 64.
Coincident Phantasies in Mother and Son. K. Abraham.—p. 79.
Epistaxis in Man Simulating Menstruation. D. Bryan.—p. 81.

Journal of Cancer, Dublin

3: 1-44 (Jan.) 1926

*Cancer and Diet. A. Charles.—p. 1.
Heat Treatment of Cancer of Cervix. A. C. Magian.—p. 14.
Experiences with Carcinoma Antitoxin. M. J. Scott.—p. 18.
Treatment of Diseases of Prostate by Deep Roentgen-Ray Therapy. W. Pilger.—p. 31.

Cancer and Diet.—Charles stresses the importance of proper feeding, outdoor exercise, avoidance of constipation and of overheated foods as means to prevent the occurrence of cancer.

Journal of Biochemistry, Tokyo

5: 293-477 (Oct.) 1925

Digestibility of Desaminoproteins by Proteolytic Ferments. R. Nakashima.—p. 293.
Proteins of Adzuki-Bean. E. Takahashi and T. Itagaki.—p. 311.
Influence of Manurial Ingredients on Hydrogen Ion Concentration of Juice of Rice Plant. K. Miyake and M. Adachi.—p. 321.
Modification of Widmark's Micromethod for Determination of Blood Alcohol. M. Aoki.—p. 327.
Influence of Atropine and Pilocarpine on Sugar Elimination Threshold. H. S. Shim.—p. 333.
Sympathicotonia and Sugar Elimination Threshold. H. S. Shim.—p. 377.
Behavior of Vital Amino-Acids During Hatching of Hen's Egg. Y. Sendju.—p. 391.
Influence of Injection of Neutral, Acid and Alkaline Salt Solution on Urine Secretion. K. Misumi.—p. 417.
Effect of Injection of Calcium Chloride and Magnesium Chloride on Urine Secretion. K. Misumi.—p. 441.
Experimental Investigations on Assimilation of Levulose, Galactose and Glucose During Fasting and with Albumin-Fat. S. Nagasuye.—p. 449.
On Gastric Juice of Pregnant Women. T. Nakai.—p. 465.

Journal of Hygiene, London

25: 1-118 (Feb.) 1926

Inhalation Experiments on Mice with Pneumococci. F. Griffith.—p. 1.
B. Coli as Index of Fecal Pollution of Water Supplies. D. A. Bardsley.—p. 11.
"Laurentic" Salvage Operations and Prevention of Compressed Air Illness. G. C. C. Damant.—p. 26.
Measurement of Bacterial Virulence and Certain Allied Properties: Virulence of B. Aertrycke. L. P. Lockhart.—p. 50.
Dick Test in Scarlet Fever Patients and in Normal Individuals. J. Smith and J. S. Taylor.—p. 90.
Effects of Inhalation of Coal and Stone Dusts on Lungs of Pit Ponies. F. Haynes.—p. 94.
Study of Tubercle Bacilli Isolated from Cases of Surgical Tuberculosis (Chiefly Bone and Joint) in Sheffield Area. J. W. Eddington and D. Guest.—p. 109.

Journal of Tropical Medicine and Hygiene, London

29: 53-64 (Feb. 15) 1926

Search for More Efficient Prophylaxis Against Tuberculosis. F. Cevey.—p. 53.
*Pathogenesis and Treatment of Seasickness. R. Ribolla.—p. 59.

Seasickness.—Ribolla believes that seasickness is a functional disturbance due to the hyperemia of the vestibular apparatus, produced by the constant changes in the position of the body on the ship in movement (movements which have an opposite direction in pitching and rolling), by which at first the semicircular canals and the endolymphatic liquid simultaneously follow the movements of the body and that when they have a movement in the opposite direction the

endolymphatic liquid continues to be carried in the direction produced by the first impulse, and then goes inversely to the movements of the semicircular canals, which follow all the movements of the body. In this way, the endolymph is made to impinge on the ampullae of the semicircular canals, producing vertigo. Movements of the ship will excite different semicircular canals, especially of the superior and posterior canals (rolling and pitching). Excitation and hyperemia of the vestibular apparatus produce a reflex vertigo, with exaggeration of the activity of the pneumogastric nerve (vagotonic state). In these conditions, the best remedies are those which act as sedatives to the vagus, and tampons producing ischemia introduced into the external auditory meatus.

Kenya Medical Journal, Nairobi, East Africa

2: 299-328 (Feb.) 1926

Population in Africa. A. R. Paterson.—p. 202.
Laboratory in Relation to Medical Practice in Kenya. W. H. Kauntze.—p. 309.
Proposed Expansion of Medical Services in Kenya. J. L. Gilkes.—p. 318.
Bwana Pumps. A. de V. Wade.—p. 325.

Medical Journal of Australia, Sydney

1: 177-186 (Feb. 13) 1926

Protein Therapy in Affections of Eye. H. F. Shorney.—p. 177.
Nerve Endings in Adipose Tissue. H. J. Wilkinson and A. N. Burkitt.—p. 179.
Ovarian Malignancy: Krukenberg Tumors. R. F. Matters.—p. 181.
Last Season's Gastro-Enteritis. E. H. M. Stephen.—p. 182.
Medical Benefits and National Insurance. J. N. Morris.—p. 184.
*Intoxication Following Use of Coal Tar Paints. T. A. Kidston.—p. 188.

Coal Tar Paints Cause Poisoning.—Kidston describes a new form of intoxication encountered among painters and laborers engaged in applying coal tar preparations to the inner walls of confined spaces. The premonitory symptoms complained of were in most cases few and mild. Onset was sudden and almost unperceived. The first symptoms were dizziness, lacrimation, gastric malaise, nasal irritation and muscular weakness. At no time was there any dermatitis or any symptom of bronchial or gastric irritation. Examination of the urine of five patients on the day after the intoxication revealed no albuminuria. Coal tar naphtha was found to be the cause of the illness. The effects are mild and temporary, causing no ill to the human system.

1: 203-228 (Feb. 20) 1926

Stillbirths and Early Infantile Mortality. P. L. Hipsley.—p. 203.
Causation and Prevention of Mortality During First Month of Life M. Harper.—p. 207.
Cerebral (Occipital Lobe) Tumor. W. Evans.—p. 212.
Torsion of Epididymis and Spermatic Cord. T. Hamilton.—p. 212.

1: 229-260 (Feb. 27) 1926

*Intra-Uterine Transplantation of Ovary. R. B. P. Monson.—p. 229.
Indications for Cesarean Section. H. C. F. Donovan.—p. 232.
Indications for Interference During Labor R. N. Wawn.—p. 237.
*Treatment of Puerperal Insanity. P. Lalor.—p. 247.

Intra-Uterine Transplantation of Ovary.—When double salpingectomy is unavoidable in patients who desire to retain the possibility of childbearing, Monson advocates intrauterine transplantation of the ovary. His experiments on rabbits show that the ovary with its blood supply intact can be transplanted successfully into the cavity of the uterus. Microscopically, the ovary is seen growing in the uterine mucosa, but it is in a state of delayed activity, as evidenced by the absence of graafian follicles, but there are clusters of primordial cells and here and there primitive young follicles. There is some atrophy of glandular elements of the uterus and slight round cell infiltration.

Vaccinotherapy of Puerperal Insanity.—Ten cases of puerperal insanity have been treated by Lalor with vaccines. Two series of vaccines were used. No. 1 series contained 20 million *Bacillus coli-communis* and 120 million *Staphylococcus aureus* in each 0.2 cc. An initial dose of 0.3 cc. was given by hypodermic injection. In four days an increased dose of 0.6 cc. was given, and so on at intervals until 1.5 cc. had been given in a dose. After an interval of a month, if no result was obtained or if the result was insufficient, a second course of no. 2 series was given. The vaccine of no. 2 series was of the same composition as that of no. 1 series, but was made up to twice the strength. The same doses and the same intervals were used in the second course as in the first. The results from the treatment are said to have been very good.

Medical Journal of South Africa, Johannesburg

21: 153-180 (Jan.) 1926

Eczema: Psychologic Factor in Causation. H. C. Martin.—p. 155.
Gallstones. R. L. Girdwood.—p. 158.
Prolonged Amenorrhea Associated with Carneous Mole. J. Schneider.—p. 162.

National Medical Journal of China, Shanghai

12: 1-123 (Feb.) 1926

*Vitality of Plague Bacilli in Stained Smears. H. M. Jettmar.—p. 1.
Beriberi Control from Administrative Viewpoint. J. W. H. Chun and W. Lien-teh.—p. 9.
Statistical Study of Six Hundred Cases of Fractures. J. T. Tai.—p. 21.
Influenza. H. L. Cumning.—p. 31.
Poison Statistics. B. E. Read.—p. 46.
Duties and Responsibilities of Present-Day Chinese Physician. L. Shu-Fan.—p. 57.
*Transmission of Typhoid Fever by Bedbugs. Lynn-Ge.—p. 62.

Vitality of Plague Bacilli.—The vitality of *B. pestis* has been studied by Jettmar. Intensive fixation by passing through the flame does not kill the bacilli in thin smears from a plague bubo. Even short fixation by alcohol after passing through the flame does not kill with certainty. Preparations stained with diluted carbolfuchsin may still contain living plague bacilli even when treated previously with alcohol for a short time. By staining with concentrated alkaline methylene blue, the bacilli seem to be killed. The wash from the stained plague smears may contain plague bacilli. It has, therefore, to be disinfected, as well as the filter paper that has been used for drying the stained preparations.

Transmission of Typhoid by Bedbugs.—Lynn-Ge has determined experimentally that typhoid can be transmitted by bedbugs, but two conditions are essential to infection: (1) The blood which the bedbugs suck must contain a large number of typhoid bacilli; (2) numerous bedbugs must bite the healthy animal.

Naval Medical Association Bulletin, Tokyo

15: 1-29 (March) 1926

Study of Exudate Cells in Seromembranous Cavities. T. Uyeyonahara.—p. 1.
Use of "Yatren" on Fistula and Ulcer of Tuberculosis of Bones and Joints. R. Suzuki.—p. 2.

Okayama Medical Society Journal, Okayama, Japan

119-246 (Feb.) 1926

Glycogen in Milk Spots of Omentum. Y. Hamazaki.—p. 1.
Experimental Studies on Meningococcic Labyrinthitis. II. Healing Processes. T. Kasai.—p. 161.

South African Medical Record, Cape Town

24: 49-72 (Feb. 13) 1926

Treatment of Puerperal Fever. A. Abelheim.—p. 50.
Heart Disease. J. P. Duncan.—p. 53.
Medical Evidence and Witnesses. O. V. Sampson.—p. 55.
Case of Glioma of Cerebellum. R. L. Girdwood.—p. 58.
General Anesthetics and Their Action on Human Body During Administration. N. J. Laubscher.—p. 59.
Case of Maldevelopment of Esophagus. R. Theron.—p. 61.
Retained Placenta. H. D. Traill.—p. 62.

Tubercle, London

7: 265-312 (March) 1926

Tuberculosis Inoculata of Guinea-Pigs. G. R. Ross and W. J. Tulloch.—p. 265. To be continued.
*Relationship of Ischiorectal Abscess and Fistula-in-Ano to Pulmonary Tuberculosis. B. R. Clarke.—p. 277.
Occupational Therapy. J. Walker.—p. 281.

Ischiorectal Abscess and Tuberculosis.—Clarke asserts that about 5 per cent of male cases of pulmonary tuberculosis are associated with an ischiorectal abscess or a chronic fistula. There is evidence that 61 per cent of cases of fistula subsequently develop pulmonary tuberculosis. About 5 per cent of fistula in ano can be proved to be tuberculous by histologic examination. Twenty per cent of cases of fistula have been proved tuberculous by inoculation experiments.

Annales des Maladies Vénériennes, Paris

21: 1-80 (Jan.) 1926

Different Methods of Treatment of Chancroid. P. Vigne et al.—p. 1.
*Benzoin-Cholesterol Test for Syphilis. V. E. Badoux.—p. 21.
*Differential Diagnosis of Nodular Syphilis. Dumollard.—p. 42.

Benzochol Test for Syphilis.—Badoux tabulates the comparative findings with the Wassermann, Sachs-Georgi and Vernes tests and the Sachs-Klopstock benzoin cholesterol (benzochol) method in 264 subjects. He applied the tests to 221 syphilitic serums, 40 tuberculous, 3 from leprosy, and 221 free from syphilis. The reactions harmonized well in the syphilitic serums. The benzochol reaction appeared more sensitive than the Sachs-Georgi, and as specific as the Wassermann or Sachs-Georgi. The test is simple and rapid, but the instability of the benzochol solution deprives this reaction of practical value. The antigen property of the solution seems to vanish in two or three months.

Lupus and Nodular Syphilis.—Dumollard found all the signs testifying to lupus in the case described, even to the findings under pressure with glass. But under tentative treatment as for syphilis the "lupus" rapidly melted away.

21: 81-160 (Feb.) 1926

General Pathology of Congenital Syphilis. J. Golay and A. Starobinsky.—p. 81.
False General Paresis in Tabes. Gougerot et al.—p. 107.
*Gumma as Primary Sore at Reinoculation with Syphilis. Montpellier.—p. 141.

Gumma as Primary Lesion from Syphilis Acquired in Congenital Syphilis.—Montpellier reports a case of genital syphilitic gumma, appearing about fifteen days after contamination. This occurred in a native of Africa with congenital syphilis, aged 30. It is probable that chancriform gummas may appear as the result of specific reinfection. This may be especially noted among the nontreated natives. The extreme allergy of the syphilized organism explains why reinoculation induces in them only a local tertiary lesion, of highly allergic type, namely, the gumma. On the other hand, this may also explain the rarity of the localization of the spirochetes in the central nervous system among the natives.

Bulletin de l'Académie Royale de Médecine, Brussels

5: 581-667 (Nov. 28) 1925

*The Campaign Against Syphilis in Belgium. Bayet.—p. 608.
*Treatment of Fracture of the Leg. M. Stassen.—p. 642.
Infection of Cattle with Theileria Parva. R. van Saceghem.—p. 651.
Biochemical Study of the Dipsacea. N. Wattiez.—p. 660.

5: 669-726 (Dec. 19) 1925

Existence of a Myometrial Gland in the Human Uterus (25 Photomicrograms). H. Keiffer.—p. 684.

The Campaign Against Syphilis in Belgium.—Bayet presents the results accomplished in Belgium since the Armistice as a brilliant success. At the close of the war the disease had spread to the remotest villages and drugs to combat it were distributed through 300 clinics and dispensaries, but it was not until August, 1920, that a concerted effort was made for systematic drug prophylaxis on a large scale. As the arsenicals cause the rapid healing over of the open lesions of syphilis, this double cicatrizing and microbicidal action reduces the contagious stage of syphilis to a fourth or a fifth of the former duration of the infectious phase. This is equivalent to reducing by 75 or 80 per cent the number of sources of infection. The universal distribution of the disease compelled universal provisions for combating it, and the national public health service called on every physician in the realm for aid. The state supplied the drugs free to every person affected with syphilis, and medical treatment was given free also, the state reimbursing the physicians for their assistance in administering the drugs. In this way, treatment was accessible to all and the entire profession throughout the country collaborated in the work. The state paid out 1,400,000 francs annually for the drugs during the first years, and paid the expenses of the numerous preventoriums established.

In the Scandinavian countries, every syphilitic is compelled to continue treatment until completely cured, under penalties up to imprisonment. But these measures are too drastic for Belgium, and the reliance had to be on measures to warn, persuade and remind the syphilitic of the necessity for overcoming their inertia and continuing treatment as long as necessary. The Antivenereal Peril League conducted an intensive campaign with posters, meetings, pamphlets, moving pictures, reaching directly nearly a million and a half persons and rallying to the service 250 different organizations of various kinds; 100 lecturers delivered 2,250 lectures, during the three years, to audiences totaling 562,500. The work of the Antivenereal Peril League was thus an indispensable complement to the work of the state in the campaign, but the country doctors deserve special credit for searching out cases in the remotest regions. The proportion of new cases to the total syphilitics dropped from 25 per cent in 1920 to 12 per cent in 1923; in Brussels, from 23 to 9 per cent; at Antwerp, from 34 to 16, and at Liége from 34 to 12 in 1924. In no other country have the results been so decisive as in Belgium except in the Scandinavian countries. The propaganda made by the league was not on moral grounds but a propaganda of facts, bringing the secret diseases out into the open, proclaiming their dangers, and posting everywhere the addresses of places where they could be cured free of cost. Most of the new cases encountered now are imported.

Treatment of Fractured Leg.—Stassen clears out the focus thoroughly, sutures, and immobilizes in a Laurencet pad, and has the patient sit on the side of the bed with his legs hanging loose. He is encouraged to move his toes, ankle and knee, repeating the pendant legs active movements day after day. The soft parts are repeatedly punctured to allow escape of lymph and blood; more than a liter of fluid may drain away in the first two days. In none of his fifteen cases treated on these principles was the temperature above 37.5 C. and it was constantly below this after the second day. The operative wound healed by primary intention, and consolidation was complete in three to six months, although in some cases the roentgen rays had shown an actual mosaic of splintered and crushed bones.

Bulletins de la Société Médicale des Hôpitaux, Paris

50: 243-292 (Feb. 19) 1926

*Familial Localizations of Syphilis. C. Flandin.—p. 243.
Multiple Osteopathies in Tabetic Subject with Pseudo-Acromegaly. P. Harvier et al.—p. 249.
Dislocations in Chronic Rheumatism. Crouzon and Christophe.—p. 255.
*Infarction of the Myocardium. R. J. Weissenbach and M. Kaplan.—p. 261.
Micrometer Test for Utilization of Hemoglobin. R. Godel.—p. 268.
Case of Wernicke's Aphasia. Laignel-Lavastine and Valence.—p. 270.
Case of Recklinghausen's Disease of the Bone. Idem.—p. 273.
Cytotoxic Serum for Thyroid Cancer. E. Coulaud.—p. 276.
*Suprarenal Melanodermia. M. Loeper et al.—p. 283.

Familial Elective Localization of Syphilis.—Flandin reports five cases of syphilis with identical localization in members of the family: syphilis of the aorta in two brothers and the wife of one; in husband and wife, and in father and son; also hemolytic jaundice, from congenital syphilis, in father and two daughters. In his opinion, the syphilitic virus is single; its localization may depend on a hereditary predisposition, rendering certain tissues or organs more vulnerable, so that they become the elective seat of the spirochetes. The identical form of syphilis in husband and wife may possibly be explained by the same food and conditions of living, inducing in them similar properties, entailing analogous reactions to a morbid agent. The specific treatment cannot modify the tropism of the spirochete in the contaminated subject, but it may modify it in the one transmitting the infection.

Secondary Angina Pectoris.—Weissenbach and Kaplan describe a case of infarct of the myocardium, inducing a condition of angina pectoris in a man, aged 62. The characteristic pain was located not only in the whole of the thorax, but also in the arms, neck, jaws and upper part of the abdomen. The pain was extremely severe and persisted for eight days, until death. The extreme severity of the pain and its unusual extent were the predominant clinical features, suggesting in this, as also in two other personal cases, the diagnosis of infarction in the myocardium.

Suprarenal Bronzing and the Sulphur of the Blood.—Loeper, Decourt and Ollivier conclude from their experimental and clinical study of suprarenal melanoderma that melanin is an amino-sulphurous substance. The suprarenals retain the

sulphur; and therefore obliteration or removal of these glands increases the amount of sulphur in the organism. The high sulphur content of the blood with melanoderma suggests that it may be a factor in the pathogenesis of the pigmentation.

Comptes Rendus de la Société de Biologie, Paris

94: 169-232 (Jan. 29) 1926. Partial Index

*Vaccination Against Anthrax. A. P. Nevodoff.—p. 170.
Changes of Lymphoid Organs Under Sun Rays. J. Jolly.—p. 173.
*Conservation of Insulin. A. Choay.—p. 178.
Bacteria Isolated from Cancers. B. Fejgin et al.—p. 199.
*Maternal and Fetal Serums. L. Hirszfeld and H. Zborowski.—p. 205.
Complement Fixation in Syphilitic and Tuberculous Plasma. J. Kabelik et al.—p. 209.
Antagonism Between Typhoid and Colon Bacilli. J. Vignati.—p. 212.
Influence of Bile on Resorption of Drugs. J. Kolda.—p. 216.
*Action of Pilocarpine on the Stomach. L. Mitrovitch.—p. 221.
*Action of Atropine on the Stomach. L. Mitrovitch.—p. 223.
Metabolic Rate in Avitaminosis B. X. Chahovitch.—p. 227.

Intracutaneous Vaccination Against Anthrax.—Nevodoff applied this method in 4,092 animals. Cattle were injected intradermally with 0.6 cc. of the anthrax vaccine, horses with 0.4 cc. and calves with 0.2 cc. The nodule, appearing at the place of the injection, subsided in three or four days. The vaccination did not induce edema or general reaction, and therefore the usual work of the animals was not interrupted. No cases of anthrax were noted among the vaccinated. A second injection of the vaccine in twenty cattle testified to the substantial immunity conferred by the first injection, as there was no reaction of any kind to the second. The Besredka technic was strictly followed.

Conservation of Insulin.—In Choay's experiments the insulin retained its potency for about two years after its preparation; and for nineteen months in solution.

The Serologic Symbiosis Between Mother and Fetus.—Hirszfeld and Zborowski say that infants with the same blood group as the mother weighed from 3,200 to 3,500 Gm. soon after birth. The weight of the infants with a blood group different from that of the mother, was from 2,900 to 3,200 Gm. Further observations suggested that considerable difference in the blood groups of husband and wife may arrest the development of the fetus or even impede fecundation. Extreme serologic differences might even be the cause of sterility in certain marriages.

Action of Atropine on Stomach Function.—Mitrovitch reiterates that atropine usually reduces the acidity of the gastric juice, also the pepsin content. It retards the evacuation of the stomach contents. The action of pilocarpine on the stomach is analogous to that of atropine, although the mechanism is different.

Paris Médical

59: 193-208 (Feb. 27) 1926

The History of Percussion. A. Gilbert et al.—p. 193.
Histamine in Study of Gastric Chemistry. A. Gilbert et al.—p. 203.

59: 209-240 (March 6) 1926

Syphilis in 1926. G. Milian and L. Brodier.—p. 209.
Tardy Erythematous Syphilids. Hudelo and Rabut.—p. 217.
*Intolerance for Antisyphilitic Treatment. H. Gougerot.—p. 220.
*Unsystematic Treatment of Syphilis. G. Milian.—p. 225.
Treatment of "Low" Gonorrhea in Women. J. Janet.—p. 231.
Marginal Glossitis Exfoliativa. G. Rimé.—p. 235.

Multiple Intolerance for Drugs Used in Treating Syphilis.—Gougerot has observed cases of intolerance not only for arsenicals or mercury or even of bismuth; but for two or all of these drugs. The cause of this "polyintolerance" is so far not established. Most of the by-effects are of the anaphylaxis type, as, for instance, arsenical or bismuth shock or erythrodermia. There are also phenomena of saturation, such as toxic arsenical neuritis, or lesions of the liver, an arsenical purpura. The intolerance may be tardy, appearing not before the end of one or repeated series of treatment; sometimes not until three or four years after the specific treatment. The intolerance may occur rapidly, at the second or third injection; it may be total, so that the patient cannot bear any preparation of the drug; or partial, intolerant only to certain brands. In this case the doses must be decreased; sometimes by a half. After suspension for a time, the drug may be resumed, starting with very small doses, and gradually increasing them. Vaccinating doses, given one hour before the normal dose, were beneficial in two patients. Antitoxic and antianaphylactic substances may be effectual. In rebellious intolerance to each of the most important drugs, less powerful antisyphilitic remedies, now unpopular, may have to be used.

Unsystematic Treatment of Syphilis.—Milian declares that there has been no reduction in the number of new cases of syphilis. He encounters as many nowadays as in 1919. This is due in part to the afflux of foreigners, especially from the African colonies, where nearly every one has syphilis. But it is due in large part also to the anarchy that prevails in the treatment of syphilis, the diversity of drugs, of doses, of routes, and the length of treatment. He reiterates that physicians are forgetting what a serious disease syphilis is; they are confident that it can be easily cured and with mild courses, and they trust too implicitly that negative serologic tests imply a cure.

Presse Médicale, Paris

34: 289-304 (March 6) 1926

Inaugural Lecture of Physiology Course. G. H. Roger.—p. 289.
*Gastric Hyperacidity and the Motor Function. P. Le Noir and R. Sarles.—p. 292.
Eye Complications of Sinusitis. R. Clément.—p. 293.

Hyperchlorhydria and Motility of the Stomach in Men and Women.—Le Noir and Sarles' tests were made on 100 men and 100 women with excessive acidity of the stomach. It seemed to be accompanied by reduced motor functioning more frequently than with exaggerated motility; associated hyperactivity of the mucosa and muscles was noted in only 10 per cent of the men, and only exceptionally in women. Depressed motor functioning of the stomach seemed to be a common phenomenon in women, even in those with hyperchlorhydria. Timbal has emphasized that women suffer less from gastric hypertonicity than men. Hurst also has noted a higher percentage in men of cases of hypervagotonia and a consecutive duodenal ulcer than in women.

Revue de Chirurgie, Paris

63: 709-780, 1925

*Wounds of the Spinal Meninges. M. L'Heureux and P. Ingelrans.—p. 709.
*Fistulas Between Stomach, Jejunum and Colon. R. Appelmans.—p. 757.
*Kienböck's Disease. R. Fontaine.—p. 769.

Simple Wounds of the Spinal Meninges.—In the six cases on record, the three with meningitis terminated fatally. With escape of cerebrospinal fluid, an epidural injection may compress the leaking point, and copious intravenous infusion may aid in restoring the normal balance. With hypertension of the fluid, concentrated sugar solutions by the vein and mouth may be useful. These and a new case are summarized, with the present status of the three patients surviving to date.

Gastrojejunocolonic Fistula.—Both patients recovered after surgical correction of the fistula, in Applemans' two cases.

Traumatic Atrophy of the Semilunar Bone.—In Fontaine's case of Kienböck's disease, the young man had injured the semilunar bone in catching a brick thrown to him in unloading. Atrophy and softening of the bone had incapacitated him, but all disturbances ceased after removal of the semilunar bone. Müller obtained good results in a case of this kind by scraping out the bone, keeping the shell of the bone.

Revue Franç. de Gynécologie et d'Obstét., Paris

21: 1-64 (Jan.) 1926

*The Oscillometer in Obstetrics. P. Balard.—p. 1. C'cn, p. 65.
Dystocia from Retention of Urine in Fetus. F. Jullien.—p. 24.
Case of Tubal-Abdominal Pregnancy. A. Weymeersch.—p. 26.
Complications in a Case of Pyosalpingitis. H. Violet.—p. 28.

The Oscillometer in Obstetrics.—Balard records the arterial pressure and the oscillometer index in normal pregnancy, in labor and after delivery, also in incoercible vomiting and suprarenal insufficiency, and in pregnancy toxemia, albuminuria, eclampsia and retroplacental hemorrhage. He specifies the influence on arterial pressure of pulmonary affections, and cardiac insufficiency, during the puerperium, and the

changes of arterial tension under anesthesia, obstetrical hemorrhages or shock and puerperal infections. He reiterates that determination of the arterial tension and the oscillometer index is valuable not only in prognosis, but as a guide and control for treatment. He summarizes the findings in eighty women, using a Pachon oscillometer, as a simple and reliable method for testing the blood pressure.

Revue de Médecine, Paris

42: 587-718, 1925

*Mediastinal-Pulmonary Lymphosarcomas. C. Roubier.—p. 587.
*Pregnancy, Protein Shocks and Biliary Colic. G. Parturier.—p. 614.

Lymphosarcoma in the Thorax.—Roubier refers to a group of cancers starting in mediastinal glands and invading the lung early, spreading to the lung, without compressing organs on the way. The clinical picture is that of a chronic pulmonary disease without appreciable mediastinal symptoms. These lymphosarcomas run a rapid course; exploratory puncture may bring pus from a cavity which may mislead the diagnosis, as occurred in one of the three cases described.

Biliary Colic in Relation to Pregnancy.—Parturier analyzes various published statistics and his own experience with twenty-six cases of biliary colic in women. In 11.5 per cent, symptoms from the biliary apparatus appeared for the first time during a pregnancy; in 88.5 such had preceded the pregnancy and reappeared afterward, but the gestation period was free from them. Biliary colic reached its maximum incidence in the postpartum period. Widal has recorded the same in regard to asthma, and Lépine in regard to epileptic seizures. Parturier thinks that this can be explained by a kind of postpartum shock. Wallich called attention in 1907 to this sudden postpartum depression, drop in the arterial pressure and temperature, and extreme weakness, the whole sudden in its onset and transient. It seems to be a kind of anaphylactic shock as the ovary resumes its external function after the long rest. This increases the analogy between liver colic and protein shock.

Schweizerische medizinische Wochenschrift, Basel

56: 193-216 (March 6) 1926

Carbon Dioxide Baths. S. Hediger.—p. 193.
Hemangioma of the Larynx. H. Raaflaub.—p. 196.
Deaths in Swiss Army. F. Kaufmann.—p. 197.
*Lutein Tissue and Metrorrhagias. F. Chatillon.—p. 204.
Psychotherapy by Expressive Movements. H. Schwerdtner.—p. 205.
Insurance of Physicians Against Old Age. O. Leuch.—p. 206.

Lutein Tissue and Metrorrhagias.—Chatillon concludes that there is no demonstrable relation between the lutein formations of the ovary and uterine hemorrhages.

Archivio Italiano di Urologia, Bologna

2: 193-291 (Jan.) 1926

*Ureteral Calculi. E. Leo.—p. 193.
*Bladder Calculi. M. Negro.—p. 223.
*Perineal Urethral Fistula. R. Botteselle.—p. 256.
*Suture After Pyelolithotomy. G. D'Agata.—p. 267.

Ureteral Calculus.—Leo's experience with the four cases described demonstrates the importance of prompt intervention, and that the stone in the ureter can be easily reached, through a small incision, by the abdominal extraperitoneal route. The ureter is usually dilated above the obstruction, so that the calculus can be easily pushed up to allow readier access. There were no pathognomonic symptoms but the roentgen findings were conclusive.

Bladder Calculi.—Negro insists that neither cystoscopy alone nor roentgen examination alone can be relied on in diagnosis of bladder stones, but the two combined are remarkably instructive.

Perineal Urethral Fistula.—Six illustrations show the technic and fine outcome of Botteselle's flap method for reconstruction of the urethra.

The Suture After Pyelolithotomy.—D'Agata's research on dogs has confirmed his clinical experience that a longitudinal incision in the posterior wall of the pelvis does not require suture as it will heal spontaneously. If the stone is so large that the incision has to form an obtuse angle—which gives much more room than a straight incision—then conditions do not favor so well the smooth flow of urine, and spontaneous healing cannot be relied on.

Chirurgia degli Organi di Movimento, Bologna

10: 1-208 (Dec.) 1925

*Paralysis from Reduction of Dislocation. C. A. Velo.—p. 1.
Deformity Preventing Reduction of Hip Joint. U. Camera.—p. 18.
Fracture of the Neck of the Humerus. G. Balice.—p. 25.
*Correction of Pes Equinus. U. Camera.—p. 49.
Surgical Affections and Ossification. P. Buonsanti.—p. 61.
*Congenital Dislocation of the Patella. R. Zanoli.—p. 83.
Oppenheim's Disease. G. Faldini.—p. 165.
*Improved Technic for Sympathectomy. U. Camera.—p. 195.
Correction of Pes Equinus. U. Stoppato.—p. 199.
*Disease of the Hip Joint. F. Delitala.—p. 204.

Paralysis After Reduction of Congenital Dislocation of the Hip Joint.—The bilateral deformity was corrected by manipulations alone in the girl, aged 10. But paralysis of both legs followed, persisting for seven months. Velo ascribes it to stretching of the sciatic nerve during the maneuvers. In 110 other nonoperative cases, the reduction was complete and permanent, without mishap.

Correction of Spastic Talipes Equinus.—Camera extols the theoretical and practical advantages of implanting a wedge of bone to spare the tendons from unnecessary strain.

Congenital Dislocation of the Patella.—Zanoli gives an illustrated description of sixteen cases and discusses the outcome under the different methods of treatment that have been proposed. His preference is for transplantation of the patellar tendon and suture of the capsule.

Improved Technic for Periarterial Sympathectomy.—Camera injects a simple saline solution between the adventitia and the muscular layer of the artery. The fluid loosens and detaches the adventitia, so it can be easily stripped off.

Hip Joint Disease.—The diagnosis wavered between osteochondritis, preceding coxa plana, and a tuberculous process. Tuberculin tests were negative, and the course of the case has apparently sustained the reliability of the biologic tests for the differential diagnosis.

Pediatria, Naples

34: 225-280 (March 1) 1926

Tuberculosis in Children. I. Nasso.—p. 225.
*Surface Tension of Effusions. M. Giuffrè.—p. 235.
Typhoid Fever at Palermo. B. Vasile.—p. 245.
Phlegmonous Parotitis in Typhoid. L. Auricchio.—p. 259.
Foreign Body in Esophagus. A. Piazza Missorici.—p. 264.

Surface Tension of Effusions.—Giuffrè confirms that a higher surface tension of the fluid (nearer to the surface tension of water) indicates absence of inflammation in the serous cavity.

Policlinico, Rome

33: 257-291 (Feb. 22) 1926

Dry Complement for Fixation Test. G. Spicca.—p. 257.
*Radiotherapy of Leishmaniasis. P. Timpano.—p. 260.
Hetero-Infection from Vaccination. C. Testa.—p. 262.
Hookworm in Forli. P. Pantaleoni.—p. 264.
Implantation of Eyeball. G. Del Guasta.—p. 267.

Radiotherapy of Leishmaniasis. — Timpano introduces radium into the treatment of cutaneous leishmaniasis.

33: 69-116 (Feb. 15) 1926. Surgical Section

Cutaneous Myomas. O. Angelelli.—p. 69.
"Postoperative Jejunal Ulcers." Dogliotti.—p. 82. Idem. Gussio. —p. 87. C'td.

Riforma Medica, Naples

42: 193-216 (March 1) 1926

Medicine and Biology. A. Barlocco.—p. 193.
*Tuberculosis and Cancer. E. Centanni and F. Rezzesi.—p. 195.
*Insufficiency of the Liver. A. Brugi.—p. 200.
Medicolegal Experts. E. Mariotti.—p. 208.
Epithelioma of the Middle Ear. M. Galli and E. Di Lauro.—p. 212.

Tuberculosis and Cancer.—Centanni and Rezzesi studied on animals the question of the antagonism between cancer and tuberculosis. Their mice were resistant against the tubercle bacilli. Injection of a mixture of cancer cells and living bacilli produced no tumors. Simultaneous injection in a different part of the body depressed the development of the

tumor, although in some of the mice only temporarily. Previous infection of the animals with tubercle bacilli delayed the development of the subsequently inoculated tumor. Injection of bacilli into the tumor partially destroyed it, but some of these animals died under toxic symptoms. Dead bacilli had no influence in parallel experiments. Tuberculin mixed with the emulsion of the tumors retarded or inhibited its growth.

Hemocrasic Insufficiency of the Liver.—Brugi regards incomplete or absent retraction of the blood clot as one of the most constant symptoms of diseases of the liver. A low number of blood platelets is another sign. The prolonged bleeding time is more frequent in liver diseases than a prolonged coagulation time.

Anales de la Sociedad Méd.-Quir., Guayaquil

16: 231-288, 1925

*Simplification of the Ambard Formula. F. Rojas.—p. 231.

Simplification of the Ambard Urea Secretion Coefficient.—Rojas gives fifty-two pages of tables of figures computed to express the values of the fundamental Ambard equation for different weights and different concentrations. This does away with the necessity for calculating the square roots separately in the individual case. He warns against allowing ingestion of water before the test. It should be made in the morning, fasting.

Archivos Arg. de Enf. del Ap. Dig., Buenos Aires

1: 189-398 (Dec.) 1925

*Visualization of Liver-Bronchus Fistula. Escudero et al.—p. 189.
Indications and Technic for Gastrectomy. R. Solé.—p. 196.
Cholesterol and Calcium in the Blood with Thyroid Derangement. M. R. Castex and M. Schteingart.—p. 221.
Adhesive Periduodenitis. Goyena and Miranda Gallino.—p. 239.
*Renal Lithiasis from Splanchnoptosis. T. Martini.—p. 255.
Cancers of the Right Colon. O. Copello.—p. 274.
Roentgenology of Gastric Ulcer. E. L. Lanari.—p. 293.
Syndrome from Insulin Hypoglycemia. Escudero and Iriart.—p. 308.
Amebic Colitis with Polyposis. M. R. Castex et al.—p. 326.
Chemical Variations in Stomach Content in Fractional Examination. C. Bonorino Udaondo et al.—p. 332.
Pancreas Cysts. P. Escudero et al.—p. 342.
Present Status of Etiology of Cirrhosis of the Liver. Heidenreich.—p. 357.

Visualization of Fistulas Between Liver and Bronchus.—Escudero and his co-workers found it impossible to get the opaque fluid into the fistula by intratracheal injection. They then punctured the hydatid cyst in the liver, aspirated 10 cc. of pus, and injected the same amount of lipiodol into the cyst cavity. The iodized oil passed into the fistula and bronchus as the patient was placed in the Trendelenburg position. Several of the instructive roentgenograms obtained by the retrograde procedure are reproduced. This and other experiences have convinced them that the method is entirely harmless.

Digestive Disturbances with Calculi in the Kidneys.—The neurasthenic young woman in the case described had calculi in both kidneys, and there was downward displacement of all the viscera. This congenital splanchnoptosis of the Stiller type explained the tendency to phosphaturia and phosphate calculi, from mechanical interference with function. It also explained the digestive disturbances from the same mechanical factors.

Archivos Españoles de Pediatría, Madrid

9: 705-768 (Dec.) 1925

*Prepuberty Obesity in Children. G. Marañon.—p. 705.
Pathogenesis of Whooping Cough. R. Duarte Salcedo.—p. 725.

Obesity in Children.—Marañon emphasizes the necessity for thyroid treatment in every case of obesity in a child with metabolism of 5 per cent below normal. This group includes nearly all the cases of obesity before puberty, and thyroid treatment is scientifically justified. The thyroid treatment not only reduces the weight as the abnormal fat melts away, but the sex characters assume a more normal type, with descent of the testes and loss of the eunuchoid aspect. The transformation in the child's appearance is sometimes remarkable in its promptness and completeness. Ovarian treatment may prove a useful adjuvant in girls. In twelve cases in children between 8 and 15 the metabolism rate ranged from zero to minus 35 per cent. Unless normal conditions are restored in time, the child is doomed to sterility and impotence.

Boletin de la Soc. de Cirugía de Chile, Santiago

3: 241-261, 1925

So-Called Rejuvenation Operations. R. Burmeister.—p. 241.
*The Bile Duct with Gallbladder Disease. Alvaro Covarrúbias P.—p. 253.

Necessity for Exploring the Common Bile Duct in Operations on the Gallbladder.—Another case is reported which brings to five the number on record in which flukes were found in the common bile duct. In the present case, the appendix and gallbladder had both been removed, but the young woman's symptoms still continued. On the assumption of postoperative adhesions, the abdomen was opened again and the dilated common bile duct was incised, releasing four lively specimens of *Fasciola hepatica*. The outlet into the ampulla of Vater was stretched before the parts were sutured.

Gaceta Médica de México, Mexico City

56: 165-274, 1925

Diagnosis and Treatment of Tuberculous Lesions in Anterior Segment of the Eye. J. de J. González.—p. 165.
Symptomatic Anthrax in Man. F. Bulman.—p. 174.
The Balsam and Its Products. J. M. Noriega.—p. 180.
Diagnosis of an Osteogenous Myeloid Sarcoma. U. Valdéz.—p. 189.
Tumor of Luschka's Gland. I. Prieto.—p. 196.
The Typhoid Epidemic at Oaxaca in 1915. Ramon Pardo.—p. 207.
Microscopic Diagnosis in Course of Operations. U. Váldez and T. G. Perrin.—p. 225.
Electrocoagulation for Chronic Anterior Urethritis. L. Rivero Borrel.—p. 229.
*First Medical Work Printed in Mexico. N. León.—p. 234.
*Present Status of Serodiagnosis of Syphilis. E. Cervera.—p. 244.

The First Medical Book Published in Mexico.—León describes a book printed in Mexico in 1570 of which only three copies are extant, one in the Lenox collection of the New York Public Library. The author was Dr. Francisco Bravo, who practiced in Spain before settling in Mexico. The title is "Opera Medicinalia," and the work contains a number of wood engravings.

Serodiagnosis of Syphilis.—Cervera relates that the concordance was perfect with the Wassermann and flocculation tests in 163 of 187 syphilitic or suspected serums. In the twenty-four in which the findings with the various tests did not harmonize, the Kahn technic seemed to be less sensitive than the other tests. This unreliability was especially noticeable when compared with the Kolmer and Hecht technics.

Pediatría Española, Madrid

14: 333-364, 1925

Regulation of Wet-Nursing. M. González Alvarez.—p. 333.
Heliotherapy for Children. Tolosa Latour.—p. 342.
*Foreign Bodies in the Appendix. M. Milano.—p. 350.
*Enlargement of Liver and Spleen in Boy. Castro Emia.—p. 357.

Foreign Bodies in the Appendix.—Milano describes the cases of three boys, aged 7 to 11, who presented subintrant attacks of appendicitis. There was no hyperleukocytosis, but otherwise the attacks were typical. The appendix was found much dilated; one contained a raw bean in good condition. In the second case a shot had served as a nucleus for a concretion of fecal matter in the appendix. In the third case the appendix was full of grape-stones and had burst, but an adhesive process of localized peritonitis had walled in the escaping grape-stones and pus.

Enlargement of Liver and Spleen with Jaundice and Normal Leukocyte Count.—The three sons had presented this clinical picture; the girls seemed to be healthy. Great improvement was realized by treatment as for syphilis although there were no signs of syphilis in the family. The two older boys had died without reaching the age of the one treated in this way in his ninth year.

Revista de la Asoc. Médica Mexicana, Mexico City

4: 1063-1131 (Dec.) 1925

Hookworm in Mexico. A. J. Warren and H. P. Carr.—p. 1065.
*Electrolysis Cures a Nevus Cancer. S. González H.—p. 1097.
Prophylaxis of Venereal Disease at Juárez Hospital. J. Castro Villagrana.—p. 1103.
The Orientations of Modern Medicine. I. Chávez.—p. 1109.

Nevus Carcinoma.—In González' case the small flat brownish nevus on the cheek from childhood began to grow as the woman reached the age of 48, forming a small tumor, bleeding readily and rebellious to application of household remedies, and finally suppurating. There was no involvement of glands. The microscopic diagnosis was melanic carcinoma, and the whole retrogressed under three sittings of negative electrolysis. The needle was passed down to sound tissue, at eleven points horizontally and eleven points on a vertical line; it was left in place for three minutes each time, while a 6 milliampere current from a dry battery was turned on. The positive pole was placed on the back. The procedure was repeated in two weeks, making the punctures at the outer edge, and a few weeks later the final application was made. The illustrations confirm the complete subsidence of the tumor in three months.

Revista de Crim., Psiquiatría, etc., Buenos Aires

12: 641-768 (Dec.) 1925

The Psychiatric Work of J. Ingenieros. H. Fernández.—p. 644.
Local Chauffeurs from Psychiatric Standpoint. A. Ameghino.—p. 654.
Mongolian Idiocy plus Dwarfism and Infantilism. J. C. Vivaldo and A. Barrancos.—p. 663.
*Remissions in General Paresis. Ramón Cisternas.—p. 678.
Idem. J. V. D'Oliveira Esteves.—p. 684.
Neuromalaria. J. Marin Agramunt.—p. 697.
Protection of Children in Industrial Life. L. Bard.—p. 703.
International Congress on Penitentiaries, 1925. E. Gómez.—p. 719.

The Remissions in General Paresis.—Cisternas comments on the 54 per cent of remissions said to have been realized with malaria treatment of general paresis. In his own experience, the Hospicio de las Mercedes received an average of 241 general paresis cases during a recent ten year period, and an average of 18.67 per cent were discharged on account of remissions enabling them to resume their ordinary life. He explains, however, that besides the forty-five discharged, another twenty might have been discharged but on account of home conditions were retained in the infirmary. This brings the percentage of remissions much closer to that of the malaria treatment, especially when it is considered that the material is not restricted to selected cases, and that early cases do not reach the infirmary. The remissions observed at the infirmary are as complete as those after malaria treatment. In order to estimate properly the actual status of the latter, the statistics of remissions should group separately the early and the old cases.

Semana Médica, Buenos Aires

2: 1409-1464 (Dec. 3) 1925

*Therapeutic Pneumothorax. A. Viton.—p. 1409. C'en, p. 1474.
*Kidney Function Test in Children. Casaubón and Winocur.—p. 1431.
"Sanocrysin." E. M. Fernández Rey.—p. 1435.
Fatty Acids of Cod Liver Oil and Chaulmoogra in Treatment of Leprosy and Tuberculosis. O. Calcagno.—p. 1435.
Acute Pneumococcus Tonsillitis; Complications. Franchini.—p. 1450.
The Teaching of Medicine. J. T. Lewis.—p. 1451.
Importance of Chemistry and of Physiochemistry in Modern Biology. C. E. Pico.—p. 1455.

2: 1465-1516 (Dec. 10) 1925

Bronchial Amebiasis. J. J. Viton.—p. 1465.
Blood Groups. F. A. Deluca.—p. 1467.
Diagnosis of Supranuclear Paralysis of the Motor Oculi Nerves. E. Adrogué.—p. 1470.
Conservative Treatment of Ruptured Uterus. M. L. Pérez.—p. 1472.
Light Free from Red Rays. E. Adrogué and J. Lijó Pavía.—p. 1501.
Certain Operations That Do Not Require an Assistant. R. F. Hernández.—p. 1513.
Progress of Plasmogenesis in Mexico. V. Delfino.—p. 1514.

Complications of Artificial Pneumothorax.—Viton discusses therapeutic pneumothorax from all angles, especially the indications and the mishaps with it, emphasizing that we must not fear it too much nor be overconfident with it. A pleural effusion developed in 25 per cent of his fifty-eight cases. He ascribes this small proportion to the fact that he uses air instead of nitrogen for the insufflation. Fourteen of the fifteen with this complication were women. In three cases there was amaurosis for a few minutes to eight hours, indicating gas embolism, but it subsided then harmlessly. He has never encountered an instance of pleural shock from the puncture alone, but in one case, after three insufflations, intense dyspnea developed from a spontaneous pneumothorax, with a secondary valve formation, and the pleura kept filling up with air, fatally suffocating the patient, notwithstanding continuous aspiration of the air by reversing the apparatus. In one man of 60 the pneumothorax had been borne well and the condition had improved, when symptoms of heart failure developed, with somnolency and edema, and he died the thirty-third day. Adhesions pulling on the right auricle or aorta induced heart symptoms in a few patients, compelling interrupting of the pneumothorax. One woman developed uncontrollable vomiting, although the pulmonary lesions had improved remarkably under the collapse treatment. The maximal intrapleural pressure had evidently been responsible for the vomiting and also for the fine and permanent therapeutic results. With pleural effusion complicating the collapse therapy, he punctures if the effusion is not promptly resorbed. If it becomes purulent, it must be drained, bearing in mind that the streptococcus is more dangerous than the pneumococcus. Tuberculin is an important aid in these complicating pleural effusions. When the pleura is inflamed, it absorbs the gas less rapidly. Twenty instructive cases are described in detail. One case teaches the evil consequences of allowing a tuberculous pleurisy with effusion to run its course without puncture, under merely expectant treatment. The resulting adhesions prevent therapeutic pneumothorax later.

Elimination of Phenolsulphonphthalein in Normal Children.—Casaubón and Winocur applied this kidney function test in forty normal children over 6 years old. They injected the stain intramuscularly, twenty to thirty minutes after the child had drunk 200 to 300 cc. of water. The urine was then examined an hour and ten minutes afterward. The extreme range of elimination was from 50 to 86 per cent (one case each). In 52.5 per cent the figure was 66, and the average of all was 69 per cent. They regard these figures as the normal standard for all except very young children.

Archiv für Kinderheilkunde, Stuttgart

77: 161-240 (Feb. 27) 1926

*Antiscurvy Value of Milk. Reyher.—p. 161.
Treatment of Congenital Syphilis. J. Hescheles.—p. 194.
*Sugar Determination in Milk. G. Bruhns.—p. 209.
Treatment of Diabetes in Children. R. Wagner.—p. 212.

Antiscurvy Value of Milk.—Reyher never observed scurvy in guinea-pigs fed with human milk. They died of inanition. The antiscorbutic value of cow's milk depends on the fodder. Boiled milk of an originally high vitamin content may give better results than raw milk with a low content.

Sugar Determination in Milk.—Bruhns comments on the marked difference between the results of determination of sugar by reduction or polarization in human milk. There may be some other polysaccharids present. Cow's milk gives identical results with both methods.

Archiv für Verdauungs-Krankheiten, Berlin

36: 333-458 (Feb.) 1926

*Pituitary Extracts and Stomach. Schoendube and Kalk.—p. 333. C'en.
*Cholesterol in Bile and Food. H. Salomon and L. L. Silva.—p. 353.
Disturbances After Gallbladder Surgery. A. Ohly.—p. 360.
*Edema and Water Production. S. Mello.—p. 372.
*Ulcerative Colitis. H. Grossfeld.—p. 384.
Nonsurgical Biliary Drainage. J. Daichowski and L. Rachlin.—p. 392.
Palpation of Stomach and Intestine. J. Fleckel.—p. 406.
Ulcer Pain and Visceral Sensibility. L. Hirschberg.—p. 423.
Influence of Bile on Movements of Colon. H. S. Lurje.—p. 429.

Pituitary Extracts and the Stomach.—Schoendube and Kalk have been studying the motility of the stomach in man and animals. Pituitary extracts have a double phase of action: the tonus and peristalsis are diminished at first and increased later. They believe that the sympathetic is irritated in the first phase, the Auerbach plexus in the second. They do not believe that histamine is responsible for the action. In direct observations on animals, the first phase was associated with a local anemia.

Cholesterol in Bile and the Food.—Salomon and Silva found even in long periods of a diet free from cholesterol the elimination of a few milligrams of cholesterol by the bile.

With a diet rich in cholesterol, the elimination was much larger without reaching the amount ingested. This occurred especially after previous deficit of cholesterol.

Edema and Water Production.—Mello points out that water forms in the body by addition of oxygen from the air. Therefore the weight of the patient may increase although the weight of urine and feces surpasses that of the intake of food and fluid. This—and not the restriction of insensible perspiration—accounts for the occasional gain in weight of fasting nephrectomized and of hibernating animals, as well as for many clinical observations.

Ulcerative Colitis.—Grossfeld makes a phenolized autovaccine and injects subcutaneously 1, 2 and 3 cc. of a suspension containing 100 millions of germs per cubic centimeter. The intervals are from three to six days—according to the general reaction. After this he injects the same volumes of an emulsion containing 1 billion germs per cubic centimeter. He interposes milk injections if the fever reaction is too weak. The diet should consist chiefly of proteins—not of vegetables.

Beiträge zur klinischen Chirurgie, Tübingen

135: 391-568, 1926

Arteriomesenteric Occlusion. G. Petrén.—p. 391.
Rupture of the Esophagus. G. Petrén.—p. 398.
Myelography. G. Büttner.—p. 404.
*Roentgen Treatment of Laryngeal Cancer. R. Prinz.—p. 426.
*Head's Zones in Abdominal Diseases. W. v. Gaza.—p. 433.
*Vital Staining of Sarcoma. W. v. Gaza.—p. 476.
Heredity in Colloid Goiter. K. H. Bauer.—p. 512.

Roentgen Treatment of Laryngeal Cancer.—Prinz treated with roentgen rays two patients with histologically diagnosed carcinoma of the larynx. One of them died almost six years afterward from an intercurrent disease. The larynx was healthy. The other—a young woman with metastatic infiltration of lymph nodes—is clinically healthy after six years, and has borne a child.

Head's Zones in Abdominal Diseases.—Gaza confirms the presence of hyperalgetic skin zones or patches in organic abdominal diseases, but only shortly after a severe colic. The majority of the zones of hyperalgesia are due only to functional disturbances. Dermographism, spastic colitis and dysmenorrhea are common in such patients.

Vital Staining of Sarcoma.—Gaza injected trypan blue and lithium carmine into a sarcoma of the tibia. Only the fibroblasts and macrophages of the stroma accepted into their cytoplasm the dye injected—not the living sarcoma cells. Diffuse staining of the cell indicates its death. Only such cells were attacked by leukocytes and macrophages.

Dermatologische Wochenschrift, Leipzig

82: 249-288 (Feb. 20) 1926

Peripheral Changes in Skin Around the Patches in Psoriasis, Etc Woronoff.—p. 249.
*Gangrene of Scalp from Bleaching the Hair. K. v. Berde.—p. 257.
Present Status of Treatment of Skin Diseases. Bruck.—p. 259.
*Toxic Action from Bismuth Treatment. O. Fischer.—p. 268.
Urethritis (Male) from Larvae of Niptus Hololeucus. Sternberg.—p. 271

Extensive Gangrene of the Scalp After Bleaching the Hair.—Von Berde gives an illustration of the gangrene of the entire back of the head in a woman of 26 who had had her red hair blondined by a professional hairdresser ten days before. The woman had long been subject to eczema. The label on the empty bottle specified 30 per cent hydrogen dioxide. The woman wore a felt hat home, thus steaming the region further with the fumes of the chemical while the braids of hair were pressed by the hat on the irritated scalp. The pain was so severe as the woman walked home that she fainted. The region healed over in the course of three months, leaving a cicatricial bald area, 9 by 10 cm. in size.

Enteritis from Bismuth Poisoning. — Severe ulcerative enteritis developed after a course of seven intravenous injections of a bismuth preparation. The patient was a young woman with spirochetes in a throat lesion and positive Wassermann reaction. The syphilitic lesions subsided under the bismuth, and the intestinal process healed in another month. There were no manifestations of a toxic action from the bismuth outside of the intestines. Fischer theorizes that the bowel must have contained an unusual amount of hydrogen sulphid on the day of the last injection, and this entailed elimination of exceptional amounts of the bismuth through the bowel walls.

Deutsche medizinische Wochenschrift, Berlin

52: 349-388 (Feb. 26) 1926

*Provocation of Occult Bleeding. I. Boas.—p. 349.
*Experimental Cancer. R. Erdmann.—p. 352.
Multiple Sclerosis. G. L. Dreyfus and R. Hanau.—p. 354. C'td.
*Sterilization with Arsphenamin. R. Prigge.—p. 356.
Insulin Treatment. H. C. Hagedorn and C. Holten.—p. 358.
Fractioned Examination of the Stomach. H. H. Hess.—p. 359.
Endoscopy and Gastroscopy. W. Sternberg.—p. 361.
Psychotherapy in Organic Diseases. Staudacher.—p. 362.
Tuberculosis and Sports in Childhood. Schneider.—p. 364.
Dietetic Treatment of Constipation. Gewecke.—p. 366.
The Angina Pectoris Question. L. F. Dmitrenko.—p. 366.
Psychology and Biology of Ants. H. Eidmann.—p. 370.
Vitamins. E. Nassau.—p. 383. C'cn.

Provocation of Occult Bleeding.—If the tests for occult bleeding are negative in spite of a suspicion of an ulcer in the stomach or duodenum, Boas recommends provocation by heat. He applies to the epigastrium, with short intervals, a hot (not warm) dressing every twenty minutes for two days. The method has also therapeutic value.

Experimental Cancer.—Erdmann injected rats with india ink and filtrates from Flexner-Jobling carcinomas. Some of these animals, as well as those in which the filtrate had been substituted by the tumor residue treated with chloroform, reacted with tumors. She also observed that peculiar endotheloid round cells emigrated from the spleens of normal animals cultivated in the plasma with tumor extracts. Such cells were not found in spleens from animals with tumors. She concludes that there is a close relation between tumors and the endothelial apparatus. The tumors take better if the latter is blocked.

Sterilization with Arsphenamine.—Prigge found extremely rarely spirochetes in the brain of mice after spontaneous recovery from recurrens and never after sufficient doses of neo-arsphenamine. Buschke's divergent results were due to the subtherapeutic doses he used. In such animals the spirochetes are present not only in the brain, but also in the blood. He found no indication whatever of any lowering of the immunity by arsphenamine in mice infected with recurrens nor in syphilitic rabbits.

Jahrbuch für Kinderheilkunde, Berlin

111: 251-379 (Feb.) 1926

*Congenital Syphilis and Irritation. R. Fischl.—p. 251.
*Incubation of Tuberculosis. B. Epstein.—p. 270.
Brain Activity of the New-Born. A. Peiper.—p. 290.
Gastrospastic Syndrome. K. Ochsenius.—p. 315.
*Scarlet Fever and Measles. F. Szirmai and B. Jacobovics.—p. 331.

Congenital Syphilis and Irritation.—Fischl publishes evidence for the first localization of manifestations of congenital syphilis in irritated parts of the skin. Staphylomycosis furnishes an especially clear example in its interrelation with syphilis.

Incubation of Tuberculosis.—Epstein found in children—without regard to age—an ante-allergic period of three to seven weeks with intracutaneous or subcutaneous tests, and of four to ten weeks with the cutaneous method. This constancy of the incubation period in man differs from that in animals, where it varies in inverse proportion with the doses of infecting material. There were no other symptoms in these children except the tuberculin reactions.

Etiology of Scarlet Fever and Measles.—Szirmai and Jacobovics repeated the work of di Cristina and Caronia and their collaborators. They regret to be unable to confirm any of their claims. In spite of this, they are not yet convinced of their futility, because of the absolute good faith of the latter authors, and because of their results in prevention of scarlet fever and measles.

Medizinische Klinik, Berlin

22: 279-316 (Feb. 19) 1926

*Syphilitic Aortitis. C. Bruhns.—p. 279.
Dyspnea. Goldscheider et al.—p. 282. C'cn.

Tuberculosis, Carbohydrates and Diabetes. P. Hecht.—p. 285.
Preparations from Gonads. T. Brugsch and H. Rothmann.—p. 287.
*Toxic Injury from Cactus Spines. J. Löwy.—p. 290.
Tetrachlorphenolphthalein. F. Reiche.—p. 291.
Examination of the Apices. E. Czyhlarz and E. Pick.—p. 292.
Gestures in Psychotherapy. H. Schwerdtner.—p. 293.
*Menstruation in Hay-Fever. R. Joachimovits.—p. 294.
*Quinine Resistant Lipases. W. Löwenberg and D. Kwilecki.—p. 296.
Occupational Actinomycosis. J. Ritter.—p. 298.
Combating the Predisposition. L. Gelpke.—p. 300.
Cancer and Its Treatment. O. Strauss.—p. 302. C'cn.

Syphilitic Aortitis.—Bruhns examined 200 syphilitic patients who had been infected from four to forty years before. He found that 23-38 per cent of them had an unsuspected syphilitic aortitis. Early and energetic treatment is indicated.

Toxic Injury from Cactus Spines.—Löwy observed local deforming arthritis and nervous changes in a finger which had been injured by thorns of a cactus.

Menstruation in Hay-Fever.—Joachimovits confirms the occurrence of menstrual disturbances in hay-fever.

Quinine Resistant Lipases.—Löwenberg and Kwilecki confirm the almost constant occurrence of a quinine-fast lipase in the blood with inflammation of the gallbladder or liver, or grave nephritis. The majority of patients with cancer metastases in the liver, or liver congestion, and two out of eight pernicious anemia patients also gave positive findings. Other acute and chronic abdominal diseases—with few exceptions—gave negative results.

Münchener medizinische Wochenschrift, Munich

73: 269-310 (Feb. 12) 1926

Scrofula. F. Jamin.—p. 269.
Treatment of Cancer. E. Philipp and P. Gornick.—p. 272.
Cultivation of Gonococci. I. W. Hach.—p. 275.
Food and Course of Diseases. E. P. Hellstern.—p. 277.
Sulphur Treatment of Furunculosis. F. v. d. Hütten.—p. 278.
Prevention of Eclampsia. J. Wieloch.—p. 279.
*Baumm's Metreurynter. S. Sztehlo.—p. 281.
Tamponade of the Uterus. Wiemer.—p. 284.
Fractures of the Vertebrae. M. Schieszl.—p. 285.
Goiter in Children. Heid.—p. 287.

Baumm's Metreurynter.—Sztehlo recommends Baumm's bag made from a hog, calf or sheep bladder. It is introduced folded into the cervical canal, and is then half filled with glycerol. The latter attracts water and distends the bag; part of the glycerol irritates the uterus by osmosis.

Wiener klinische Wochenschrift, Vienna

39: 233-264 (Feb. 25) 1926

Obesity. J. Bauer.—p. 233.
Accentuated Diastolic Heart Sound. M. Sihle.—p. 237.
*Thrombosis of Splenic Artery. K. Blum.—p. 239.
Nevus Sebaceus. E. Eitner.—p. 242.
Water Metabolism. W. Falta.—p. 243. C'cn.
Immunology and Epidemiology. W. Böhme.—p. 246. C'tn.
Treatment of Facial Paralysis. A. Fuchs.—p. 248. C'tn.
Injuries of Eyes. H. Lauber.—p. 250.
Venereal Diseases and Matrimony. E. Finger. Supplement.—pp. 1-8.

Thrombosis of Splenic Artery.—Blum's patient had pains in the left hypochondrium, enlarged spleen, polycythemia and leukocytosis with shifting to the left (Arneth). Thrombosis of the artery was found in the removed spleen. The polycythemia and a shifting to the left persisted after splenectomy, and only a few Howell-Jolly bodies appeared in the blood.

Zeitschrift für Kinderheilkunde, Berlin

40: 623-737 (Feb. 20) 1926

*Temperature in Measles. H. Orel.—p. 623.
*Thirst in Breast-Fed Infants. H. Hirsch.—p. 629.
Exfoliative Dermatitis. O. Ullrich.—p. 644.
*Sunlight and Vitamins. H. Vollmer.—p. 655.
*Correlation of Food. E. Nassau and S. Schaferstein.—p. 659.
*Calcium in Breast Milk. E. Stransky.—p. 671.
*Incontinence of Stools. S. Weissenberg.—p. 674.
Sequels of Epidemic Encephalitis. L. Kwint.—p. 678.
*Familial Jaundice and Cirrhosis of the Liver. Bischoff and Brühl. —p. 702.
Irradiation of Food. I. Serebrijski et al.—p. 716.
*The Vaginal Flora. G. Soeken.—p. 727.

Temperature in Incubation Period of Measles.—Orel recorded the temperature in twenty-six children who had been infected by contact with measles patients. It was normal in the majority of them at the time of the infection as well as later, in the incubation period. Other causes were responsible for the higher temperature in some of them.

Injury from Lack of Water in the Breast Fed.—Hirsch describes the symptoms of dehydration fever which occur most frequently on the third day of life, but may account also for certain postoperative disturbances. The infant's skin is dry, keeps the folds, the tongue is red, granular, resembling corned beef. The mouth is dry, the fontanels, as well as the abdomen, are depressed, the urine and stools dark colored. The voice is hoarse; the infant makes licking movements and drinks eagerly the offered water. Cerebral symptoms, especially vomiting, may predominate—similar to heat stroke—and rectal administration of fluid may become necessary. It should not be forgotten that an infant needs 150 Gm. of water daily per kilogram of body weight.

Sunlight and Vitamins.—Two—probably univitelline—twins had grave rickets notwithstanding a previous diet rich in vegetables and cod liver oil. Vollmer treated them for fourteen days with artificial sunlight reenforced by administration of eosin. The food contained practically no vitamin C. After this he added vitamins to the food of one of the twins. The other recovered under continued irradiation more rapidly than the one with irradiation plus vitamins.

Correlation of Food.—Nassau and Schaferstein show that it is irrelevant to ascertain the significance of single constituents of the food for pathologic intestinal processes, and other disturbances. Only the reciprocal proportions of several elements of the food are comparable. A pure solution of sugar is rapidly resorbed and cannot do much harm. Addition of proteins or, still more, of fat and, most of all, of cow's whey retards the resorption of sugar and favors fermentation. Human milk is indifferent.

Calcium in Breast Milk.—Stransky applied Kramer and Tisdall's method to human milk. He found about 0.045-0.06 per cent of calcium oxide before nursing and 0.025-0.04 per cent after nursing.

Encopresis.—Weissenberg suggests this term—analogous to "enuresis—for incontinence of stools. The pathogenesis of both is to a certain extent similar. Mental causes predominate—bad dreams and fright. An enema given before going to bed is helpful.

Familial Jaundice and Cirrhosis of the Liver.—Bischoff and Brühl observed cirrhosis of the liver in three sisters. The splenomegaly, jaundice, and periodically clay-colored stools appeared at the age of 11, and the physical development was retarded. The necropsy findings in the oldest sister are reported.

The Vaginal Flora.—Soeken made vaginal smears from a number of girls. Cocci predominate in children except infants. After the eleventh year, vaginal bacilli were found in the majority. These were never encountered in the absence of all the signs of puberty, but they appeared before menstruation. She found that the complete change of the flora takes place within one week.

Zeitschrift für klinische Medizin, Berlin

103: 1-159 (March 3) 1926

Classification of Anemias. G. Holler.—p. 1.
Alveolar Gas Tension. J. Benczúr and I. Berger.—p. 86.
*Fixation Abscess in Treatment of Sepsis. L. Jacob and H. Wendt.—p. 92.
*Mushroom Poisoning. W. Steinbrinck and H. Münch.—p. 108.
Chronaxia Determination. E. Blumenfeldt.—p. 147.

Fixation Abscess in Treatment of Sepsis.—Jacob and Wendt injected 2 cc. of oil of turpentine subcutaneously in the side of the thigh. This causes immediately or within two days a painful infiltration which softens in four to twelve days. The abscess should be lanced only if there is fluctuation. They had fine results in pneumococcus and staphylococcus septicemia and in cerebrospinal meningitis of the subacute type. A second fixation abscess is sometimes necessary.

Mushroom Poisoning.—Steinbrinck and Münch deal with the botanical, clinical and therapeutic aspects of mushroom poisoning. Profuse lavage of the stomach and intestine with a suspension of charcoal is indicated, even if the poisoning

occurred the day before. Remnants of the mushrooms were frequently found with this. Repeated intravenous infusions of 300-500 cc. of 10-20 per cent sugar solutions, with eventual addition of calcium salts, are very useful. Camphor is somewhat dangerous because of the disturbance of liver function, which may prevent its synthesis to glycuronic acid. Caffeine is to be recommended. It is still questionable whether insulin should be added, since mushroom poisoning also entails hypoglycemia.

Zeitschrift für urologische Chirurgie, Berlin

19: 127-252 (March 1) 1926

*Endocrines After Vasectomy. C. Rossi.—p. 127.
Urine Retention in Children. F. Rost.—p. 148.
*Ambard's Coefficient. J. Goldberger.—p. 153.
*Treatment of Pyelitis. G. v. Pannewitz.—p. 173.
Gangrenous Cystitis. R. Fronstein.—p. 181.
Leukoplakia of Urinary Tract. J. von Borza.—p. 194.
Cancer of Testicle. A. Weiser.—p. 201.
Tumors of Scrotum. S. Rubaschow.—p. 218.
Italian Urologic Congress.—p. 242.

Endocrines After Vasectomy.—Rossi resected the vas deferens in twelve dogs and studied the changes in the endocrine glands thereafter. The number of eosinophils in the pituitary as well as the lumen of blood vessels were increased in the first seven months after the operation. The follicles of the thyroid and their contents decreased, while the interfollicular epithelia proliferated for about eight months. The connective tissue of the prostate was hypertrophic and the glandular portion atrophic for about the same period. Lymphoid cells accumulated at certain points of it. The testis was swollen for about forty days. The inner rows of sperma cells degenerated in the first two months, but the basal row persisted and led to regeneration. The spermatozoa never disappeared. There was only a slight increase in the interstitial cells. The pineal gland was enlarged only in one of six dogs. The parathyroids, mammae and suprarenals showed no changes.

Ambard's Coefficient.—Goldberger recommends the determination of Ambard's coefficient in urologic practice. Careful work is necessary.

Treatment of Pyelitis.—Pannewitz recommends a sudden change of the actual reaction of the urine in treatment of pyelitis. With an acid reaction, an alkalinizing diet and intravenous injections of sodium bicarbonate may help. With alkaline reaction of the urine, an acid producing diet, acids by the mouth, and methenamine intravenously should be given.

Zeitschrift für Urologie, Leipzig

20: 81-160, 1926

Hydronephrosis with Hematuria. J. Gottlieb.—p. 81.
Echinococcus of the Kidney. K. Fillenz.—p. 96.
Tuberculosis of Dystopic Kidney. H. Bock.—p. 101.
*Diagnosis of Bladder Tumors. R. Picker.—p. 105.
Cure of Gonorrhea. R. M. Fronstein.—p. 112.
Urethral Hemorrhage. R. Demel.—p. 125.

Diagnosis of Bladder Tumors.—Picker observes roentgenologically the mechanism of evacuation of the bladder filled with a solution of sodium bromide. After this, he fills the bladder with air and continues the observation.

Zentralblatt für Chirurgie, Leipzig

53: 449-512 (Feb. 20) 1926

Invagination Ileus. J. Hohlbaum.—p. 450.
*Rheometry of Brain Tumors. Lihotzky.—p. 452.
Periarterial Sympathectomy. N. Sawkoff.—p. 458.
Transparency of Hydrocele. E. Becker.—p. 462.
Autohemotherapy. W. Mull.—p. 463.
Rubber Tube Drainage. G. Lotheissen.—p. 467.
Makka's Line. A. Nussbaum.—p. 468.
*Postoperative Ischuria. F. Lampert.—p. 469.

Localization of Brain Tumors by the Electric Resistance of the Growth.—Lihotzky surveys the further good experiences with A. W. Meyer's rheometric method of detecting brain tumors which are not palpable. He measures by means of a needle electrode and Wheatstone bridge the resistance to the electric current. With his apparatus, it was 600 ohms in the brain tissue, 280-320 in the tumor, and 60-80 in the cerebrospinal fluid.

Postoperative Ischuria.—Lampert uses 1 cc. of a 1 per cent solution of pilocarpine in postoperative retention of urine. Intravenous injection is necessary. A necessity for keeping the intestine in repose is a contraindication for the pilocarpine.

Zentralblatt für innere Medizin, Leipzig

47: 161-184 (Feb. 20) 1926

*Tuberculosis Campaign and the Practitioner. G. Zickgraf.—p. 162.

Tuberculosis Campaign and the Practitioner.—Zickgraf criticizes the prevailing attitude of the central welfare committee. Even the smallest organizations of welfare amateurs and every other possible factor are encouraged to cooperate; the practitioner alone is left out. His duty is only to make the diagnosis. After that, the sanatorium and then the social service will take care of the tuberculous subject. He deplores the propaganda for consideration of hospitals as the only way of good treatment. The patient's opinion on the previous treatment and diagnosis is taken seriously by the hospital physicians—because of their ignorance of real conditions in the world outside—and utilized for transferring responsibility in therapeutic failures to the practitioner. The social service nurses are another factor promoting an antagonism between the practitioner and the patient—not to the advantage of the campaign against tuberculosis.

Prophylaktitcheskaia Medizyna, Kharkoff

5: 1-170 (Feb.) 1926. Partial Index

*Lipoids in Serologic Tests. D. Grineff and Baranova.—p. 14.
*Diagnosis of Relapsing Fever and Malaria. I. Mishtchenko.—p. 20.
*Oral Vaccination Against Typhoid. M. Solovieff and B. Gandelsman.—p. 24.
Right of Privileged Communications and Venereal Diseases. N. Drapkin et al.—p. 84.

Significance of Lipoids in Serodiagnosis of Syphilis.—Grineff and Baranova conclude from their research that the serologic reactions in syphilis do not depend on chemical changes of the serum, but on the disturbed stability of its elements (proteins, lipoids and salts) affecting the colloid balance. The instability of the colloids in syphilitic serums is probably induced by a relative increase of cholesterol, and decrease of phosphatids.

Epinephrine Injections in Relapsing Fever and Malaria.—Mishtchenko recalls Zlatogoroff's epinephrine test in relapsing fever. A dose of 0.5 cc. of 1:1,000 epinephrine solution is injected subcutaneously in patients with relapsing fever, and the temperature is taken every two hours. If the temperature does not rise, the injection is repeated forty-eight hours later. If the temperature continues within normal range after the second injection, this is accepted as a negative reaction. With a positive reaction, fever occurs within twelve hours after the injection. Personal experience has confirmed that relapses need not be feared as long as the epinephrine test is negative. The positive test was most pronounced between the fourth and seventh day following an attack. Contraction of the spleen and consequent expelling of specific spirochetes into the general circulation may explain the positive response to the epinephrine. The test was always negative in cases of reinfection. The epinephrine test was valuable also in diagnosis of malaria treated recently or insufficiently. The mechanism was the same, the expelling of plasmodia into the blood. The injection seemed harmless.

Oral Vaccination in Typhoid.—The method was applied by Solovieff and Gandelsman in places with endemic typhoid fever. They used cultures of Shiga bacilli, instead of bile, for sensitization of the intestine. The liquid vaccine contained agar cultures of typhoid and dysentery bacilli, killed by heat. There were 70 thousand millions of typhoid bacilli and 30 thousand millions of Shiga bacilli in 5 cc. of the vaccine. To conserve the vaccine, phenol was added, and peppermint to improve the taste. The vaccine was given fasting; 5 cc. to adults; 2.5 cc. to children below 10; 1.5 cc. to those below 5. No by-effects were noted with this method. The oral vaccination appeared as effectual as the subcutaneous. Typhoid developed after vaccination only among those treated during the incubation period. Prophylactic vaccination by this method checked the further spread of the disease.